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the magazine of the Royal Ontario Museum

OPIUM

THE LONG LIFE MUD

AFTER THE EXXON VALDEZ

THE OLD BOYS IN ATHENS

CHIMAERAS AND SHARKS

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the magazine of the Royal Ontario Museum

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Editor's Note

This must be the most intoxicating issue of *Rotunda* ever published. The cover illustrates an enchanting little container for opium, a drug well known in the East and West for thousands of years. In the nineteenth century, British and Chinese attitudes often clashed over the acceptability of the drug. The Chinese regarded opium as a panacea. Many British decried the Chinese opium den, yet found laudanum (tincture of opium), often disguised with innocent product names such as Mrs Winslow's Soothing Syrup, an acceptable although addictive medicine. In her article Catherine Pagani, a research associate of the Museum's Far Eastern Department, shows how the boxes reveal Chinese attitudes to opium and the British presence in China.

Wine was the preferred intoxicant of the aristocratic and intellectual elites of ancient Athens. They would gather to practise their excess in a meeting of self-perceived respectability known as a *symposion.* Today all that is left from these events are wine vessels decorated with scenes from *symposia,* lyric poetry, and philosophical discourses. The Royal Ontario Museum has several wonderful symposiac vessels in its Greek collection. Meg Miller from the University of Toronto uses poetry and the images on these vessels to create a colourful picture of a typical *symposion.*

Those seeing the more than 320-million-year-old fossils of Montana's Bear Gulch limestone formations for the first time may wonder if they are intoxicated or dreaming. The fossils are evidence of some of the most ancient and oddly formed shark-like and chimaera-like animals that ever lived. Richard Lund, a research associate with the Museum's Department of Invertebrate Palaeontology, describes these ancient animals and explains how they may have been related to each other and in some cases to animals living today.

It is known for a fact that Canada's first prime minister, Sir John A. Macdonald, was certainly high-spirited in his political dealings, and rumours had it that he was high-spirited in his private dealings as well. To commemorate the 100th anniversary of Sir John A.'s death, Douglas Fetherling of the *Kingston Whig Standard* writes about this most amazing man's association with Kingston, the city where his career began and blossomed.

The last feature has a more sobering theme. In the spring of 1990 Kathryn Coates, a curator in the ROM's Department of Invertebrate Zoology, was hired by Woodward-Clyde, a Seattle consulting firm analyzing the clean-up of the *Exxon Valdez* oil-spill for Exxon. They wanted her to examine some intertidal worms in Prince William Sound, Alaska, where the oil spill had taken place the year before. Contrary to all expectations the worms had not only survived, but seemed to thrive in the oil-polluted environment. Needless to say, other animals and plants did not fare as well. The people in the region have also been affected. Ann Walmsley, a journalist with a great interest in environmental issues, interviewed Coates and many others involved in the clean-up to look at the immediate and long-term impact of the *Exxon Valdez* disaster.

We hope you enjoy the lightheaded and the sobering thoughts throughout this issue of *Rotunda.*

Sandra Shaul

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Quality is Job 1.

This rare painted buffalo robe was recently acquired by the Ethnology Department of the Royal Ontario Museum.

BRIAN BOYLE, ROM/TRACINGS: KEIRA ENNESON, ARNI BROWNSTONE

Rare Buffalo Robe Acquired

An intriguing painted buffalo robe was recently received by the Ethnology Department of the Royal Ontario Museum as a result of the generosity of Mr. Avrom Isaacs. Painted buffalo robes are usually associated with Plains Indian cultures and generally fall into two categories: those showing pictographic images of war deeds painted by men and those bearing abstract, geometric designs painted by women. The Museum's recently acquired robe is marginal to both categories. It is of a type of which there are only 14 known examples, and has caused considerable speculation revolving around two issues: attribution and the iconography of branch-like motifs.

The problem of attribution was first tackled in 1916 by B. W. Merwin, who studied eight of the robes. While he correctly recognized their common Ojibway heritage, he was mistaken when he associated the robes with the shamanic practices of medicine men. In contrast, John C. Ewers, in his study of Plains Indian painting published in 1939, described this type of hide painting as "of doubtful aboriginal origin," Ewers's attribution is doubtful in view of the number of documented examples that indicate Ojibway origins. It was only with Christian Feest's study published in 1979 that a true picture of the origin of these robes began to emerge. He concluded that the items in question were executed by a single Ojibway artist from the area of Michigan or Wisconsin and were intended for sale to tourists.

A clearly visible inscription on the new ROM acquisition, *Mrs. Wm. Minar, Newberg Mich., Oct. 9, 1884,* supports Feest's conclusions, while adding further insight to his touristic attribution. The robe is dated four years after the buffalo herds had disappeared and may have been considered by its owner, presumably Mrs. Minar, as a souvenir of a bygone era. Indeed, a trophy-like quality is suggested by the untrimmed edges left on most of the remaining robes, which preserve a semblance of the living animal. Furthermore the repertoire of motifs

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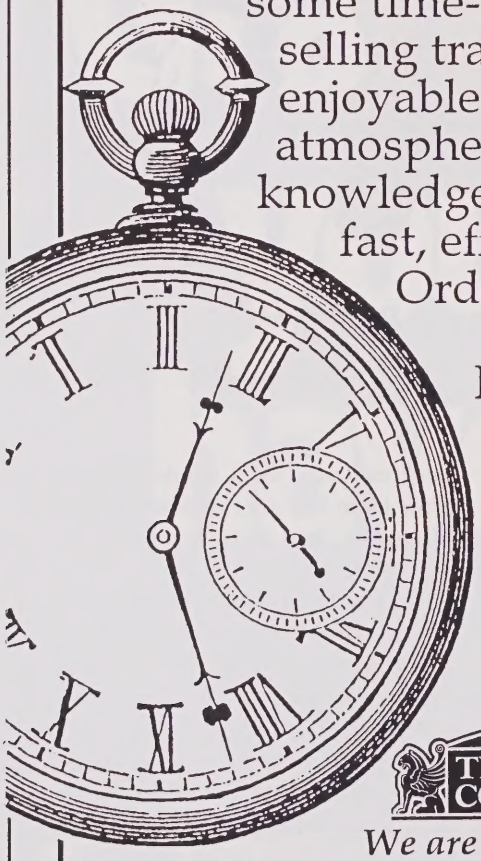

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found in variations on all the robes are images that native craftspeople knew to be particularly saleable in the non-native marketplace.

However, the touristic association may be understood in more precise terms in view of the fact that the robes have not strayed far from where they were made. All are in collections situated around the Lake Superior region, which suggests that the robes had been in local use. Thus the woman's name in the inscription might mean that in addition to serving as a tourist souvenir, the robe had a utilitarian function, perhaps relating to home life.

The second problem of iconography applies to the curious branch-like images painted skilfully over sewn-up slits that are on all of the 14 known robes. When studying the placement of the branches in relation to the other painted elements on each of the robes, the branches seem totally random. However, a different situation presents itself when the placement of the branches on the buffalo hide itself is considered. In order to clarify the relationship, I made tracings from illustrations showing only the branches on each robe, and then superimposed all the tracings on each other. In this way, it became readily apparent that the array of branches is not completely random. The branches tend to be distributed towards the head of the buffalo skin and around the undersides, but not towards the upper portion of the rump. I believe that the slits were made by someone other than the artist, and that the artist created the branches to improve the appearance of the flawed robe.

While the reason for the slits and the intended use of the robe remain issues for speculation, the Royal Ontario Museum is most grateful to receive this unusual artifact.

ARNI BROWNSTONE
Arni Brownstone is a curatorial assistant in the Department of Ethnology

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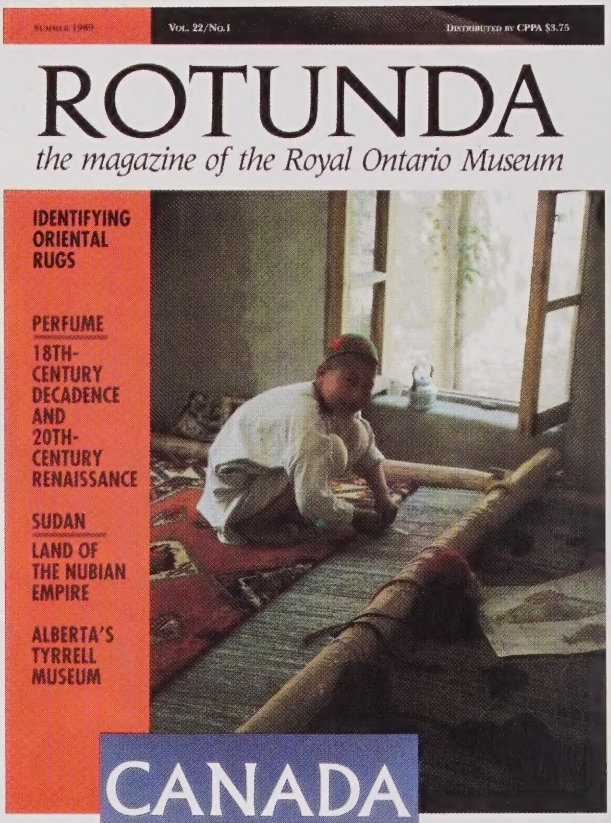

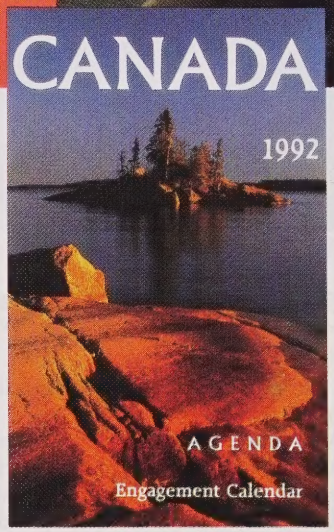

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The pair of chopsticks are real; the Chinese noodles and Japanese soup are appetizing reproductions. Chopsticks have been used for the preparation and eating of food for thousands of years.

Chopsticks

CHOPSTICKS MUST BE THE SIMPLEST but most versatile tools used for preparing, serving, and eating food. They are nothing more than two long thin sticks made from any solid material like wood, bamboo, bone, horn, stone, jade, gold, or silver. Invented in China, chopsticks are found in many countries that came under Chinese influence such as Japan and Korea. Because chopsticks are most commonly made of wood or bamboo they are very perishable, so that it is difficult if not impossible to determine when they were first employed.

The earliest examples of chopsticks found are made of bronze and are square. They come from sites of late Spring and Autumn to early Warring States times (fifth century B.C.). Although they were found with other food utensils, it is not known if they were used for eating or just for lifting the wide variety of vegetables and meat from hot soups.

Like western cutlery, chopsticks serve to keep hands clean and to prevent fingers from being burned by scalding liquids. They also make it possible to enjoy food while it is still very warm. However, they were originally created to pick up hot cooking stones. Cooking with hot stones is one of the earliest methods of food preparation, predating the firing of pottery, a technique known to date back more than 10,000 years.

It is not clear when the Chinese started to use sticks to remove vegetables and meats from soups. There are bronze ladles from ancient times that were designed with many holes so that liquid could be drained away from solid foodstuffs as they were lifted from the cooking pots. The use of utensils for eating evidences the development of a civilization to the point where some form of etiquette has been adopted. At first people ate with their fingers; only later did they feel the need to keep their fingers clean.

In the Qu Li section of the *Book of Rites* (c. third century to second century B.C.) it is stated that chopsticks are needed if soup has vegetables in it. Chopsticks are denoted by a combination of the sign for wood and the phonetic element for " to press from both sides." The later written version of chopsticks combines the sign for bamboo with the phonetic element for "to boil." The idea conveyed is that bamboo things were used to handle food that was boiling in a cooking pot. It

BRIAN BOYLE, ROYAL ONTARIO MUSEUM

In the November issue of *Rotunda*...

The Greatest Pianos in the World

By Cynthia Dann-Beardsley

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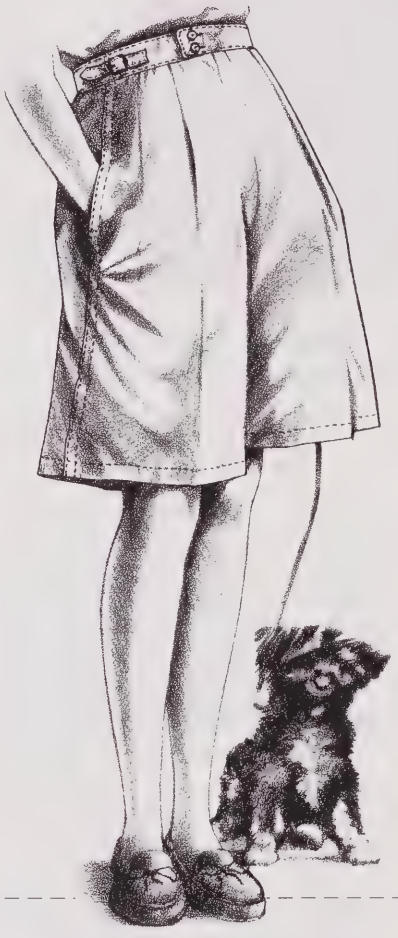

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is obvious that chopsticks were first made for scooping up food from soup rather than for putting food in the mouth.

Several types of ladles and spoons have been found at Shang sites(fourteenth century to eleventh century B.C.), but few chopsticks. In several pre-Han texts (third century B.C. to third century A.D) it's mentioned that the last Shang king used ivory chopsticks, luxury items that not only signified extravagance but presaged the collapse of the dynasty. The *Shi Ji* (*Records of the Grand Historian*) clearly states that the king used chopsticks to take food from soup. It also indicates that people of early Western Han times (early third to second century B.C. until A.D. 8) commonly thought that it was preferable to use chopsticks for this purpose only and not for picking up grain. The *Book of Rites* gives the following orders: "Do not use chopsticks for eating millet;" "When eating with others from the same dish of grain, one should not have to wash one's hands;" "Do not roll the grain into a ball;" and so on. Evidently one used one's fingers and not chopsticks to eat grain.

The ancient Chinese lived mainly in North China and ate steamed or boiled millet. Because millet grains are small and not sticky, it would have been not only difficult to pick them up with chopsticks but also inevitable that grains would fall on the seats or dinner table. To use chopsticks the bowl of millet would have had to be lifted to the mouth with one hand and the grains swept in using chopsticks in the other hand.

But in Shang and Zhou times the food vessels were all rather large and heavy and definitely not designed to be held in one hand. By early Western Han times, however, small round-bottomed bowls or short ring-footed bowls appeared in great numbers. They probably were created to make it possible to eat grain with chopsticks. A tomb of late Warring States to early Western Han date excavated at Jinjueshan,

Linyi in Shandong, contained a few dozen chopsticks resting beside a lacquer plate on which grain would have been served. This probably indicates that chopsticks were used to eat grain. Although many people ate grain with their fingers in early Western Han times, it appears that eating grain with chopsticks was also quite popular.

Looking briefly at another aspect of eating in China it should be noted that even after chopsticks were commonly used diners still picked up some foods with their fingers. Therefore it was necessary to have a container with water at the table so that diners could rinse their hands. Basins were indispensable at banquets and the banqueters carried cloths at their waists for drying their hands. Usually there were attendants at such occasions. Because they were generally women, the written symbol for a female is the same as for a hand-drying cloth. When a female child was born, a hand-drying cloth was hung at the door of the house to announce the birth.

Take a moment to reflect when you next use chopsticks at a meal. Their simple form represents part of the complex history of Chinese culture.

JAMES HSU
James Hsu is a curator in the Far Eastern Department of the Royal Ontario Museum

Learn more about "The Art of Chinese Cuisine" at the ROM from Jean Lumb, C.M., Bonnie Stern, and the chefs of Toronto's Pink Pearl (Harbourfront), Red Pepper Garden, Hunan Palace, Champion House, and Mandarin Club restaurants. Win a trip for two to Hong Kong during the March food festival. Call (416) 586-8093 for information.

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Long Life Mud

Chinese opium boxes have much to tell about the turbulent times of later Imperial China

Catherine Pagani

MARK SHAPIRO

From left to right: Three opium boxes made of natural materials—walrus ivory, horn, and dried mandarin-orange peel. The horn box has a slip of painted paper sandwiched between its inner and outer walls, giving a warm tint. Late nineteenth century, 4.3 cm to 6.5 cm.

The mention of opium smoking in China conjures up images of dark shapes lying on couches and puffing silently on pipes that send up clouds of rich, fragrant smoke to swirl around dark disreputable rooms. As is often the case with stereotypes, however, this popular image of opium use is not altogether accurate. Opium smoking was not restricted to the dens. It was also practised in the homes of the elite, as men and women from all classes of society took opium. Even the Empress Dowager was known to enjoy a pipe or two at the end of the day.

One item of paraphernalia used by these smokers was the opium box, a somewhat curious container used to store the gummy substance. Made from a variety of materials such as silver, ivory, and even dried mandarin-orange peel, these boxes are small enough to be held in the palm of the hand. Designed to hold a substance that was at the centre of great political controversy between the Chinese and foreign powers, opium boxes offer us a glimpse into the social and cultural climate of later Imperial China. They illustrate in miniature the materials, techniques of manufacture, and motifs from religion, mythology, and folklore that were used in the decorative arts at this time.

One of the largest collections of opium boxes in the world belongs to H. J. Eiley of Toronto, who amassed his 150 boxes over several decades. The strength of the collection lies in the sheer variety of the boxes: many are made of finely worked metals, mostly silver, white copper, and brass, although there are exquisite examples of ivory, jade, horn, mandarin-orange peel, and porcupine quill.

Opium comes from the latex of the opium poppy, *Papaver somniferum*, which is

Catherine Pagani is a research associate in the Far Eastern Department of the Royal Ontario Museum

COURTESY FAR EASTERN DEPARTMENT, ROM

Paintings like this watercolour of an opium smoker were produced by the Chinese as souvenirs for Westerners intrigued by life in the mysterious East.

THE OPIUM POPPY
IS INDIGENOUS TO WESTERN EUROPE AND ASIA.
OPIUM HAS A LONG HISTORY OF USE
IN BOTH THE EAST AND THE WEST

collected from incisions made in the poppy capsule after the leaves have fallen off. These incisions must be skilfully executed: if the cut is too shallow, no juice flows; if too deep, the precious latex is lost among the seeds. The latex smells of newly mown hay and looks very much like tar. Seeds from this plant, however, are non-narcotic and may be used for a variety of edible products from flour to oil.

The opium poppy is indigenous to western Europe and Asia, although it may be cultivated in any temperate or subtropical climate. Opium has a long history of use in both the East and the West. In China, several centuries before opium was smoked it was consumed either in a soup or as a pill to cure a variety of ailments including dysentery and diarrhea. The Mediterranean world seems to have been the first to discover the properties of this plant. Hippocrates (c.460-c.377 B.C.), the father of modern medicine, wrote about the juice of the poppy, and other Greek and Roman writers such as Homer and Virgil mention the "sleep-giving poppy" in their works. The very word "opium" comes from the Greek term meaning "juice." However, the use of the opium poppy may in fact go back even further to the second millennium B.C., as archaeologists have found artifacts representing what they believe to be the capsule of the plant in ancient Egypt.

Through its study of Greek medicine, the Arab world learned of the poppy's

Finely worked and brightly coloured cloisonné enamels of the hundred-flowers pattern surround two delicate landscape scenes on this silver opium box. Nineteenth century, 6.5 cm.

properties. The Arabs knew the plant as *afyûn* or *afyûn*, a term adapted from its Greek name. They, in turn, transmitted this information to the Chinese sometime in the eighth century. From that time on the Chinese used opium as a cure-all. They thought it to be a powerful aphrodisiac as well. A sixteenth-century Chinese *materia medica* gives the following recipe for using the plant to prepare a panacea:

The stalk and outer covering should be removed as well as the stringy fibres within. Dry them in a dark place and cut them very small. Then mix them with rice vinegar and simmer them over fire, after which they may be used as a drug. They may also be prepared using honey instead of vinegar....With vinegar, prunes, or orange peel, it is most effective at relieving diarrhea, asthma, rheumatism, or pain in the heart and stomach.

The deer and crane of longevity rest under the spreading branches of a gnarled tree on one side of the box and a monkey scratches his head as he pokes a wasp nest hanging from a pine on the other. Often symbols of longevity such as the deer, crane, monkey, and pine decorate opium boxes because the ingestion of opium was believed to lengthen one's life. Nineteenth century, 4.6 cm.

In China, there were many names for the opium poppy. Some were derived from foreign words: *afuyong* from the Arabic, and *yapian* from the Greek. Some names were descriptive of the shape of the capsule itself: "jar millet" and "millet bag" were two such names. Later the drug came to be called "foreign mud," referring to its association with the British East India Company, which was largely responsible for importing it into China in the nineteenth century. As opium was also thought to increase longevity, it came to be known euphemistically as "long-life mud."

It was not until the early seventeenth century that the Chinese began to smoke opium. The experience is much more pleasurable than simply eating the drug: when smoked, the drug enters the bloodstream directly and the effects are felt much more quickly. The smoking of opium started as an offshoot of the smoking of tobacco leaves that had been steeped in opium-saturated water. By the late 1760s, the Chinese were smoking pure opium.

Although there was native opium production in China from at least the eighth century, most of the opium smoked in the eighteenth and nineteenth centuries was produced in areas of India controlled by the British, notably Bengal and Malwa. The Chinese preferred Indian opium to their own as they felt it was stronger, and therefore better. The British interest in opium was a purely economic one. Although the English craved Chinese silks and porcelains and imported roughly 15 million pounds of teas per year, the Chinese, for their part, expressed very little interest in British products. Therefore the balance of trade was achieved with opium. Several decades later opium was to become a central issue in disputes between the Chinese and foreign powers resulting in the two Opium Wars (1839-1842 and 1857-1860).

Imports of opium from India into China increased at an alarming rate through the late eighteenth and into the nineteenth century despite Imperial edicts against it. From 1729, the date of the first Imperial edict when the total was only 200 chests per year, imports rose steadily and rapidly until by 1839 more than 40,000 chests were imported annually.

Because the opium was smoked in China, rather than ingested, it had to arrive in a form that allowed it to be further processed for the pipe. Indian factories had to take special measures when packing the raw opium for shipment. The opium was first dried in the sun to get rid of excess moisture, and then formed into balls, each roughly 1.4 kilograms in weight; these were then rolled into sheets made of dried poppy leaves and crushed stems. Finished cakes weighed about 1.8 kilograms each and were described by one nineteenth-century writer as "a pretty regular sphere not unlike in size and appearance a twenty-four pound shot." The thick crusty rind encasing a globe of jelly earned these cakes the nickname "Dutch cheeses." Forty cakes were packed in each mango-wood chest and shipped to the smokers in China.

An opium cake had to be boiled, filtered for impurities, and allowed to dry out until it was thick like molasses before it could be smoked in the special long-stemmed opium pipe. A detachable bowl

MARK SHAPIRO

COURTESY FAR EASTERN DEPARTMENT

This turn-of-the-century photograph, probably staged for the benefit of Westerners, shows an opium smoker and all his paraphernalia: two bowls for his pipe, two small vials and an opium lamp. The man on the left is smoking tobacco. Far Eastern Department Archives, Royal Ontario Museum.

VIVID WRITTEN DESCRIPTIONS, DETAILED AND MELODRAMATIC ENGRAVINGS, AND STAGED PHOTOGRAPHS WERE EAGERLY SOUGHT BY AN ENGLISH PUBLIC CURIOUS ABOUT THE CHINESE OPIUM DENS

in the shape of a flattened sphere fitted into the stem and a small opening in the bowl held the opium. This allowed the opium to burn quickly rather than smoulder slowly when over the flame of the lamp.

Smoking opium was no simple matter. One had to lie down in such a way that the pipe could be held conveniently over the lamp. Only a tiny pea-sized blob of opium was needed for each pipeful. This was extracted from the box on the end of a spoon-headed needle and heated with the flame of the lamp until the opium changed from a dark brown to a honey colour. At this point it was put into the small opening in the bowl of the pipe, placed over the lamp to burn completely, and inhaled in one breath. Some smokers required as many as 20 pipefuls per sitting to achieve the desired effect. One Western observer in the nineteenth century found that "the taste of the half-fluid extract is sweetish and oily, somewhat like rich cream, but the smell of the burning drug is rather sickening."

Much of the opium offered for sale was through the opium den, a place that evoked intense curiosity among Westerners in China. Vivid written descriptions, detailed and melodramatic engravings, staged photographs, and even trade paintings by the Chinese themselves were eagerly consumed by avid publics in England and America. In many of these accounts and illustrations, a small opium box may be found placed beside the smoker next to

Because of the value of the materials used and the fine workmanship, opium boxes were often given as gifts. This box, made of openwork jade with a silver insert, has a gilded silver lid. It was likely a wedding gift, for the characters on the lid mean "double happiness" and the four stylized bats are symbols of bliss. Nineteenth century, 4.6 cm.

These boxes, decorated with the popular Buddhist lion-dogs, have lids attached with screws as an added measure of security. The boxes were suspended from chains attached to a belt worn on the owner's waist. Nineteenth century, maximum height 4.6 cm.

his lamp.

Ironically, while they were horrified by the Chinese habit, the English themselves were taking a highly addictive tincture of opium in vast quantities. Cheap and plentiful, these opiates were known to relieve everything from fevers to boredom. Mixtures with names such as Mrs Winslow's Soothing Syrup were even given to babies and young children to keep them quiet.

Prepared opium was stored in small boxes about which little is known. However, the study of eighteenth- and nineteenth-century accounts by both Westerners and Chinese, contemporary paintings of opium smoking, and inscriptions on the boxes make it possible to piece together their history and use.

Why is it clear that the boxes were made for opium and not for medicines, for example? The boxes themselves offer the best evidence. Often they are inscribed with short phrases or poems that allude to the pleasures awaiting the user. Many of these inscriptions form an integral part of the overall design of the box and therefore have to be contemporary with the box's manufacture, suggesting that these boxes were in fact made for opium only. One box states, "In one breath, it is all used up," referring to the quick combustion of the opium in the pipe. Another advises, "If you use it regularly, you may extend your life," while another tempts, "The beauty is within."

Opium boxes are usually round or oblong in shape and have deep-fitting pull-off lids. Because the opium was thick, it had to be stored in a container with a wide opening for easy access. As opium was expensive, it was purchased in small lots, making large boxes unnecessary. And because these boxes were probably carried by the owner in the same way some snuff bottles were, either in a sleeve or suspended in a pouch at the waist, large boxes would have been cumbersome. Occasionally a box with a raised design of a bat or some other auspicious motif on the lid will have an outer sleeve with a cutout that allows the design to show through. A single box may even house two smaller stacking compartments, and some boxes have a false bottom to hold an extra hidden supply.

Because opium was enjoyed by all levels of Chinese society, the boxes were made in a number of different materials, from precious metals of intricate design to simple polished horn. A wealthy smoker would have elaborate and costly opium boxes to complement his pipes of silver, jade, or gold. The social elite would offer opium in interesting and expensive boxes to guests after dinner. Boxes were probably collected and given as gifts as well. Their small size, costly materials, intricate workmanship, and decoration of literary or mythological allusions would make them particularly appealing. Daoist immortals, Buddhist emblems and Confucian paragons, items from the scholar's desk, and various flora and fauna are found incised, enamelled, or hammered in relief patterns on these boxes.

Silver boxes form the largest portion of the Eiley collection. The Chinese characters struck on the bases of these boxes are particularly interesting to scholars who wish to learn more about the working of silver in China at this time. Assayers' marks that translate as "pure silver" are common. These marks do not guarantee that the box is made of pure silver. As there was no standard for the fineness of silver currency, there was no standard for articles made from silver, and the actual silver content in these pieces may vary anywhere between 80 to 97 parts. Occasionally a box may have a date stamp, a place name, or a maker's mark, all of which add to the knowledge about the artisans.

Another common metal was white copper, called *paktong* or *baitong* in Chinese. This metal, an alloy of copper, zinc, and nickel, was known in China for centuries. It was especially popular as an inexpensive substitute for silver since it had a similar appearance when worked.

MARK SHAPIRO

IRONICALLY, WHILE HORRIFIED BY THE CHINESE OPIUM HABIT, THE ENGLISH WERE TAKING A HIGHLY ADDICTIVE TINCTURE OF OPIUM IN VAST QUANTITIES

Opium smoking is featured in this lurid scene of an opium den. From *The Chinese Empire Illustrated,* 1853.

PHOTOGRAPHIC SERVICES, ROM

Many of the metal boxes were created by use of a technique known as repoussé, in which the raised designs are hammered from behind. Afterwards they could be painted with enamels. Others are decorated in cloisonné enamels—a technique whereby small wire cells fixed to the metal base hold the enamel paste. Another method of enamelling involved painting the enamels onto a metal surface that had been coated with an opaque, usually white, enamel. This technique came relatively late in Chinese history, a result of the European presence at the Chinese court in the late seventeenth century.

In contrast to the metal boxes, ones made from organic materials were generally kept rather plain, although there are some unusual horn boxes that have a slip of painted paper sandwiched between the outer and inner walls. The result is a painted scene with a warm golden tint from the colour of the polished horn. Because organic materials are less durable than metal, fewer opium boxes of this type remain.

Chinese opium boxes, though connected with an insidious habit, are fascinating to study because they are the product of a turbulent period in Chinese history caused by the strong foreign presence of the British. Through our knowledge of this history and Chinese culture, we can see the boxes as expressions of the social climate and as superb examples of the decorative arts of later Imperial China. ❦

AFTER THE EXXON VALDEZ

What can be learned from oil spills?

ANN WALMSLEY

IN MARCH 1990 ROM CURATOR KATHY COATES COULD BE SEEN PROBING BENEATH THE rocks of remote island beaches in Alaska's Prince William Sound. In her hunt for some peculiar escapees from the *Exxon Valdez* oil spill, Coates, a zoologist specializing in invertebrates, would periodically pick up a handful of mud and drop it into a plastic Ziplock bag. Although the March 1989 spill smothered hundreds of thousands of marine mammals, fish, and birds in the sound and in the Gulf of Alaska, a species of tiny white intertidal worms known as oligochaetes seemed impervious to the black tide. Indeed for some curious reason the hair-thin centimetre-long creatures not only survived but thrived on the disaster.

Zoologists at Alaska's Department of Fish and Game were the first to make the discovery a few weeks after the spill. On some oiled beaches the puffy globs of oil mousse that they scooped up contained hundreds of the worms—burrowing and apparently feeding in the black froth. The worms were also teeming in oiled seaweed. Although the writhing clumps were not popular with the beach crews, it was initially encouraging to find that one species in the food chain was resilient.

But the "Exxon worms," as they were called by people working on the spill, soon became a focus of concern. Scientists at Alaska's Department of Environmental Conservation (DEC) feared that the oligochaetes' bizarre new choice of diet could pollute the food chain, as they, in turn, were consumed by fishes that would absorb the oil stored in the worms' cells. In fact the scientists have found that some fishes in the sound are producing enzymes that break down oil in their systems—enzymes that can go awry and produce potentially deadly substances instead.

Coates was one of the experts hired by Woodward-Clyde, a Seattle consulting firm, to report on spill damage in order to direct the continuing cleanup by Exxon. Coates, who studies oligochaetes, says the explanation for the worms' behaviour is probably quite simple. Normally they live in the coarse sediments of rocky beaches and feed on bacteria and fungi. The breakdown of oil produces fungi, which would have provided the worms with a veritable feast. Moreover, part of the cleanup measures had involved seeding the beach with oil-consuming bacteria and a French-made fertilizer named Inipol to speed the bacteria's growth. Coates thinks that it is possible that the oil-consuming bacteria and fertilizer were also appetizing to the worms. No one had any idea of the densities of the worm populations on Prince William Sound beaches before the spill, but after the event the worms were more plentiful than on any other beach Coates had studied. "There were tons of them," she marvels, "everywhere I looked."

Coates was surprised at how oil-free the Alaskan beaches seemed just 12 months after the spill. It is now more than two years since the *Exxon Valdez* tanker ran aground on Bligh Reef, where it spilled 11.2 million gallons of North Slope crude oil into Prince William Sound, and to the casual observer the archipelago of treed mountainous islands in the sound could easily be mistaken for an untouched wilderness. The slurp of oily waves has been replaced by the crisp sound of salty breakers. Two winters have helped to scrub the worst of the inky traces from the grey cobble beaches. And animal life is apparent: bald eagles wheel above clifftop eyries, sea otters frolic near the shore, humpback whales breach farther out, and some fisheries are reporting record harvests.

But all is not well in Prince William Sound. Oil is still trapped beneath rocks and in shoreline sediments, where winter storms and heavy waves release it. On the beaches of Knight Island visitors say they still detect a musty refinery smell instead of the normal pungent evergreen scent. Subsistence fishermen report that tar balls are floating in the water. Last summer some formerly huge seabird colonies produced no new young, and eagles in the area are having difficulty reproducing. Wild pink salmon have not returned to some of their traditional streams. And several killer whales are missing from well-known local pods. "You just don't see as many sea otters around there as you used to, nor as many seals," complains Kimbal Sundberg, a habitat biologist with the Department of Fish and Game. "Walking along beaches that used to be pristine but now have oily sheens coming off of them is not

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Ann Walmsley is a freelance journalist in Toronto

ROM curator Kathy Coates, in Alaska to report on lingering damage a year after the *Exxon Valdez* oil spill, was surprised at how oil-free the Alaskan beaches seemed. But all is not well in Prince William Sound

The dots on the rocks in the intertidal zone off Chenega Island are newly settled barnacles. Older barnacles survived the spill and spawned. The babies also survived and were able to cling to the rocks.

KATHY COATES

my idea of an aesthetic experience in the wilderness. [The spill] has diminished the entire environmental experience."

Scientists had predicted that the delicate subarctic environment would take longer to recover than other spill sites. The cold slows the evaporation and degradation of the oil, according to Marshal Kendziorek, chief of data management at the DEC in Juneau. But for months little was known about the recovery progress because litigation between Exxon and the U.S. and Alaskan governments prevented scientists from discussing their findings. A few are now speaking out, saying they are angry that the public is being deprived of the information, especially at a time when researchers need to know everything they can to help species in the path of the Persian Gulf slick.

The Gulf slick is 10 times larger than the one in Prince William Sound and is not exposed to the same flushing action of ocean waves. It is decimating coral reefs, mangrove swamps that are nurseries for shrimp, and birds ranging from cormorants to grebes. "I think it is scandalous not to release the scientific information," said one Alaskan government official who asked not to be named. "How are we supposed to know what to do in future spills if we cannot learn from the world's most devastating spill?"

Common murres were a very vulnerable species of bird during the oil spill because they dive for food. Three-quarters of the dead birds counted were common murres.

D. FORSELL

Finally last April some scientific assessments of the damage to wildlife in Alaska were released as part of a $1-billion settlement between Exxon Shipping Company, Exxon Corporation, and the U.S. government. (Exxon had already spent $2.2 billion on the cleanup.) According to a summary of 58 government studies filed in the U.S. District Court for Alaska, the oil coated roughly 2000 kilometres of coastline, and drifting petroleum hydrocarbons have contaminated the seafloor far from the spill—in places where the water is as deep as 100 metres. Roughly 350,000 to 390,000 seabirds and 5500 sea otters died in the disaster, as well as hundreds of eagles. "There is a noticeable lack of bird life here compared to elsewhere in Alaska," observes Alan Eliason, superintendent of the Katmai National Park, whose fjord- and glacier-lined shores were fouled by the slick.

But that glimpse of information was short-lived. The settlement broke down within weeks and litigation between the parties may now suppress scientific information for years. Certainly Exxon-commissioned scientific studies on the effects of the spill that have been released have come to different conclusions from government-financed studies. Last spring Exxon filed its own summary of 20 studies that it has released, which it says "supplements and contrasts the views in the government summary." Joe Tucker, an Exxon spokesman, says: "We are saying that [our] summary supports Exxon's position that the recovery of Prince William Sound is well on its way: that the water is clean, the fish are abundant and safe to eat, and that the wildlife is thriving. The beaches have been effectively cleaned." Tucker stresses that the government summary is "preliminary and speculative" because its preamble states that it is based on fieldwork and data analysis conducted to date. Even more optimistically, Exxon's director of Alaskan operations, Otto Harrison, declared that in purely economic terms the impact of the spill was beneficial for Alaskan people and industry because they received damage settlements and were given jobs in the cleanup.

There is little dispute on either side that the seabird most devastated by the spill was a puffin-like member of the auk family—a diving bird called a murre. The slick began spreading just when common and thick-billed murres were returning to the sound and carrying out their elaborate pre-nesting ritual of rafting—floating together in vast flocks, chattering and reestablishing their pairs below the rockcliff rookeries. In the sound's main murre colonies on the Barren and Chiswell islands in the Gulf of Alaska, the black tide bore down on these rafts and wiped out 60 to 70 per cent of the breeding birds, and in one case almost 100 per cent. Most died because their oil-soaked feathers deprived them of insulation against the cold.

Last spring ornithologists were initially hopeful because a surprising number of young murres did return to the Barren Island rookeries, building the population to half its historic size of about 118,000. Calvin Lensink, who was with the Migratory Bird Management Project of the U.S. Fish and Wildlife Service at the time of the

According to government studies damage to wildlife and the environment was extensive. The oil coated roughly 2000 kilometres of coastline and petroleum hydrocarbons had contaminated the seafloor far from the spill

Off Chenega Island a year after the spill, there was the sheen of oil at the water's edge and film on the rocks.

KATHY COATES

spill, says that observers are assuming that many of these returning birds had escaped the spill in 1989 because they were too young for breeding and had remained at sea, diving for fish on the continental shelf. But though they returned in 1990, their first season of nesting was miserably unsuccessful: no reproduction at all. "They were not experienced breeders," explains Lensink. "There was a lack of synchrony in their egg-laying. When they are all laying eggs at one time, they can swamp predators such as ravens and gulls."

With between six and 12 million murres in Alaskan waters, it could be argued that the spill's effect on the total population has been negligible. But as Lensink points out, murres are strongly attached to specific nesting colonies. Neighbouring murres will not migrate to depleted rookeries to shore up the population. "Because of that," he says, "murres were pretty well devastated by the spill on colonies like the Barren and Chiswell islands and it could take decades before those colonies are restored."

Other birds that were also severely hit include species that tourists to Alaska make special excursions to see, such as the sound's populations of marbled murrelets and pigeon guillemots. Yellow-billed loons, harlequin ducks, pelagic cormorants, and bald eagles also lost many of their number. Bald eagles, which are abundant in Alaska, fished in oiled waters and scavenged on oil-contaminated carcasses of birds. "The data from last summer suggested that there was a substantial effect on eagles," says Lensink. "The nesting success of eagles that remained in the area of the spill was very low and for those in nearby areas was lower than in more distant areas." Eagles that consumed oiled creatures produced only a third as many young eaglets as eagles living in Alaska's clean areas, and they abandoned their nests at twice the normal rate.

Because they also dive for their food, horned puffins were as vulnerable as common murres. However, they did not return to their nesting grounds, which were affected by the oil spill, until early May, five to six weeks after the spill. Relatively few dead puffins were found, indicating that birds killed by the spill died before mid-May.

Before the spill some scientists had speculated that certain marine mammals were intelligent enough to avoid the floating oil. Killer whales, porpoises, and harbour seals swam through the thick surface layer, however, and herds of female seals chose to bear and nurse their pups on oiled beaches through the spring and summer. "They very convincingly did not avoid oil," says Kathryn Frost, a seal specialist with the Department of Fish and Game in Fairbanks, Alaska. "The seals did not seek out cleaner areas. Presumably they were the resident animals who stuck with their home territory or perhaps they were mentally disoriented. And it may be that the whales and porpoises were not able to detect the oil at the surface."

Only 19 seal carcasses were recovered during the spill, although researchers estimate that the spill killed 200. Dead seals tend to sink and are not recovered. Lesions were found in the thalami of the brains of six of the 19 seals. According to Frost, many of the seals they observed in the weeks following the spill appeared lethargic and dopey, as though the aromatic vapours from the oil had intoxicated them.

In the case of otters it was assumed that most would die from hypothermia, once the oil soaked into their fur, depriving them of insulation. Instead many died from lung or liver failures simply from ingesting oil or breathing the vapours. Other animals scratched themselves blind. Females far outnumbered males among the otter carcasses and, sadly, 65 per cent of the dead adult females were either pregnant or lactating.

Despite frantic and expensive efforts to clean otters, experts now say that the work was largely in vain. Only half of the cleaned animals that were released survived. Forty-five of the healthiest animals were fitted with radio transmitters before they were freed late in the summer of 1989. Eight months later 12 were known to be dead, nine were missing. One animal's fate is unknown because its transmitter failed to work. Since a wide area was searched, those missing are presumed dead. "These mortality and missing rates are much higher than is normally observed for adult sea otters in Prince William Sound," says biologist Lisa Rotterdam, who works at the Prince William Sound Science Centre and conducted the experiment. "And this should be the best-case scenario because these were the healthiest animals."

"When the otters were released there was a tremendous amount of publicity and the public went away with a happy story," Rotterdam adds. "But the data suggest there was really no way to fix those animals. Despite the tremendous amount of

A. SOWLS

According to Exxon studies the water of Prince William Sound is now clean, fish are safe to eat, and wildlife is thriving. The Alaskan people benefited from damage settlements and jobs relating to the cleanup

Ice covers the clean beach of the intertidal zone of Eschamy Bay before sunrise.

KATHY COATES

money and energy directed towards the treatment and care of these animals, the otters released from the centres were not completely rehabilitated. This tells us you cannot assume that you can fix otters once they are oiled, and the key thing is to prevent animals from being oiled to begin with."

Rotterdam is recommending that in future spills workers should not attempt to capture animals that are oiled. Instead she suggests trying to protect their critical habitats with booms, instigating preemptive capture of animals in the path of the spill, and removing them to natural but barricaded clean habitats, not captivity.

The story is equally grim where fish species are concerned. Herring, shrimp, and shellfish fisheries remained closed in 1989. Abnormal embryos and larvae were dramatically more frequent in local Pacific herring that were spawning in the sound's eelgrass shallows and algae beds at the time of the spill. A year later the Department of Fish and Game found that 90 per cent of herring fry that hatched from eggs taken from contaminated waters in Prince William Sound showed abnormalities, compared to only five per cent in non-oiled waters. Larvae from wild pink salmon that spawned in heavily oiled streams displayed particularly gross abnormalities, including club fins and curved spines.

Black-legged kittiwakes and other surface-feeding gulls were able to avoid the oil.

CALVIN LENSINK

Meanwhile scientists say they have found worrisome evidence that intertidal fishes in the sound are producing unusually high amounts of an enzyme known as cytochrome P-450E that breaks down oil in the body. The enzyme, while helpful in metabolizing the oil, also has the potential to break down the oil into harmful derivatives that are carcinogenic, mutagenic, or in some cases simply toxic. Some of these fishes may have fed on the oil-eating "Exxon worms." Scientists found heightened levels of the enzyme in intertidal pricklebacks and gunnels, as well as such open-seas fish as halibut, Pacific cod, and kelp greenlings. Pink salmon fry also showed more of this enzyme in their bodies than those in non-oily areas. Although the National Oceanic and Atmospheric Administration (NOAA) tested samples of fish for human consumption, they did not test for the enzyme or its byproducts. "Their tests only tell a small part of the picture," says Environmental Conservation's Kendziorek.

It is such uncertainties that concern native subsistence hunters and fishermen in the sound. "When we do come upon seals or whatever that we've normally had in abundance, there is a lot of apprehension about whether we should harvest them because of the fears of the oil," says Darrell Totemoff, an administrator with the Chenega Bay Village Council, the first native community hit by the spill. "And once a consumer in Atlanta hears of double-headed fish or mutant fish, that is just going to be a whole bad situation for everyone."

Furthermore some methods of cleaning the beaches may have done more harm than good, especially to intertidal species. According to one official at NOAA, high-pressure hoses blasting water at 140 degrees Fahrenheit killed thousands of shoreline organisms as it washed away the oil. The flushing water also forced up to 10 times more hydrocarbons into the delicate intertidal and subtidal ecosystems than existed after the initial spill.

In that zone snails, barnacles, and limpets are continuing to have difficulty recolonizing. Filter-feeding mussels are still accumulating petroleum hydrocarbons, which means that the many birds that feed on mussels, such as harlequin ducks, are eating contaminated food. Intertidal algae are also in trouble along many shores, according to Alaska Fish and Game's Sundberg. The algae are used by the herring for spawning. One form of algae known as fucus or popweed is particularly sparse. "Cleanup workers were ripping handfuls off the rocks because it was oiled," says Sundberg. "Also they steamed a lot of it and ended up just cooking the stuff with hot water." Without fucus, snails and other rock-dwelling animals lack food and protection against freezing when the tide is out. Sitka black-tailed deer also rely on fucus for food in the spring, because food foraged on dry land has been exhausted by the end of winter.

Regrowth is not a simple matter. In other studies scientists have found that fucus recovers very slowly when removed in large patches. The reason may be that young plants that settle on rocks need larger plants to protect them from the elements until they are established. Sundberg also suggests that continued leaching of hydrocarbons from the beach sediments is harming the algae. "Some of the rocks still feel

greasy on the bottom," he says. "As the tide goes in and out, it releases a sheen."

The damage caused by the *Exxon Valdez* spread beyond the animal and plant kingdom to the human domain, particularly to native Alaskans whose entire way of life was disrupted by the spill and subsequent cleanup. Ever since the *Exxon Valdez* leaked her cargo into the sound, things have gone poorly at the native village of Ouzinkie on Spruce Island, according to its Aleut mayor Zack Chichenoff. About 16 kilometres from Kodiak, the island is 16 hours by boat from the spill site. The village's 216 people depend on subsistence fishing and hunting for their livelihood. "It disrupted different things—our subsistence way of living," says Chichenoff. "People were hesitant to eat the fish for a long time. And now we are having problems here trying to get anybody to do anything. There were a lot of people spoiled by those big wages they received during the Exxon cleanup. Naturally a lot of them made a lot of money. They never thought ahead that this was a one-time thing. In my opinion it was hard for them to get back to the normal way of living like they used to do before this came along." The children of Ouzinkie also suffered during the summer of 1989. Just a few months after the spill, the beaches were too heavily oiled for them to swim and picnic as they usually do.

Chichenoff says that it is more difficult to determine whether certain changes in wildlife that native fishermen observe are due to the spill. But he suspects last summer's virtual disappearance of pink salmon in the Spruce Island area was related to the disaster. Pink salmon dominate the salmon harvest in the sound. "We have a stream right by the village that they generally like to come up to, but there were no pink salmon at all," he says. "Normally the boats would get at least 10,000 to 15,000 pink salmon during the summer but last summer there were hardly any. I do not remember a summer like that."

This experience sheds new light on the bumper pink salmon harvest in the sound in 1990. The harvest was a record, with 35.1 million fish taken, up from the previous record of 30 million in 1987. But according to the U.S. government in its court summary "this was primarily due to strong runs of hatchery-produced salmon." Hatcheries released 600-million pink salmon fry into the sound the previous spring.

If anything good has evolved from the spill, it is that scientists know more about how such disasters can affect the environment. Marshal Kendziorek spent two weeks in Saudi Arabia last spring aiding the Persian Gulf spill work. And the Canadian SPANS (Spatial Analysis Systems) spill software designed by Ottawa's INTERA TYDAC Technologies Inc., which proved helpful in mapping the progress of the *Exxon Valdez* spill and identifying which animal species would be affected, is also being used by the governments of Bahrain and Qatar in the Persian Gulf. Tougher regulations concerning spill prevention have also become law in the United States, thanks to the devastation in Alaska.

There is still no answer to the question of how long it will take for Alaska to purge the hydrocarbons from its system and for wildlife to rebuild its populations. "There are plenty of long-term ecological effects," says Kendziorek, "but it is hard to pin them down without a shadow of a doubt." Most of the scientific study in Alaska has focused on assessing damages for the litigation, not on analyzing the long-term recovery. It took eight years for the coastline of France to recover following the *Amoco Cadiz* spill, which involved 69.5 million gallons. Some sensitive marshes are only now returning to normal. In Alaska it is still unclear whether frigid temperatures have been an advantage or a disadvantage. As Eric Brus, executive editor of *Golob's Oil Pollution Bulletin* in Cambridge, Massachusetts, points out, although hot temperatures cause the aromatic fumes to evaporate quickly, they also frustrate cleanup by melting the tar balls and mats of oil on the beaches. Those patches then bleed oil into the water. In cold weather lumps of hardened oil that wash onto shore can easily be picked up and discarded.

Even when all traces of the spill have been eradicated—when murres nest successfully again on the Barren Islands and herring fry reveal no abnormalities—the *Exxon Valdez* spill will remain a black stain in environmental history. "When you see birds coming in dead, it is about as awful a thing as you can imagine," recalls Calvin Lensink. Adds Lisa Rotterdam, "It is etched in our memories forever." ❦

MANY NATIVE ALASKANS HAD DIFFICULTY READJUSTING TO REGULAR SALARIES AFTER THE SUBSTANTIAL WAGES THEY EARNED DURING THE CLEANUP. MANY SCIENTISTS BELIEVE THAT ONLY TIME WILL REVEAL ANY LONG-TERM DAMAGE TO THE PLANTS, ANIMALS, AND PEOPLE OF PRINCE WILLIAM SOUND

When The Old Boys Met

Was the symposion *a wild revel or the home of philosophy and lyric poetry?*

Meg Miller
Photography by Edward Gajdel

IN ATHENS

SOMETIME ABOUT 600 B.C. THE GREEK nobleman Alkaios took up his lyre at an evening gathering and sang this song for the first time:

"Don't get your spirits in a funk
No profit in conniptions.
Bynchis, the best prescription's
to fetch wine. Let's get drunk." (335)

On another occasion he sang:

"Let's drink. Why wait for the light of lamps?
Day is as thin as a finger. Fetch down the large painted cups.
Zeus and Semele's son [Dionysos] gave men wine to forget their cares.
Mix it one to two, fill them to the brim, let one cup chase another..." (346)

When Alkaios began to sing, he and a company of about six other men, all garlanded with myrtle, were probably reclin-

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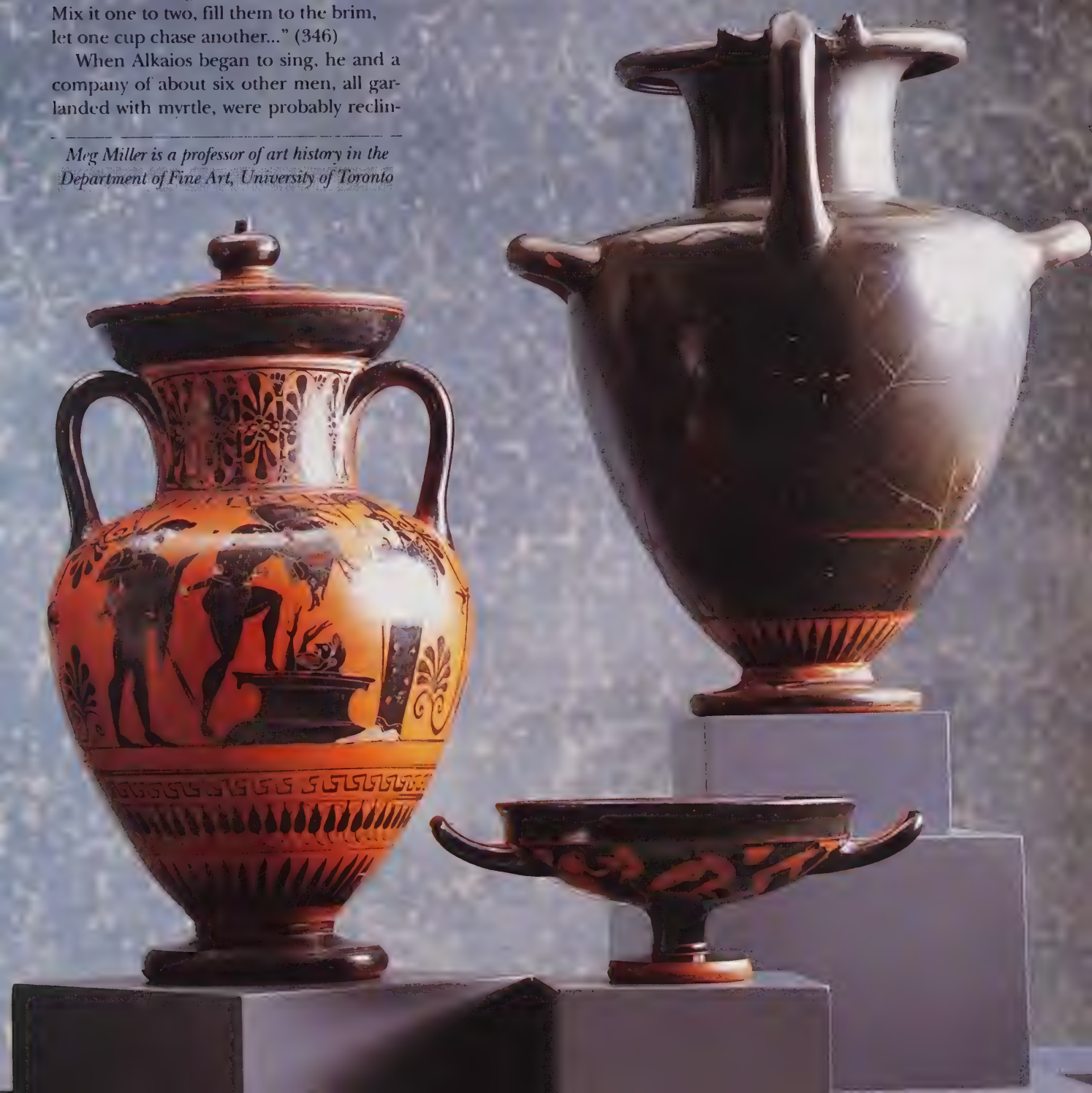

ing on their couches after having sung a hymn to Zeus and eaten a simple dinner (*deipnon*). Wine mixed with water (drinking wine neat was considered the act of a barbarian) had already been served by slaves.

As the songs suggest, when enough wine had been consumed to relax all inhibitions, parties such as those held by Alkaios and his companions could degenerate into revels with the participants continuing their dancing (*komos*) and singing out into the street, disturbing the whole neighbourhood. This type of party was called a *symposion*, literally a "drinking together" for a group of men who wished to enjoy music, song, witty conversation, and, above all, wine drinking. The tradition lasted for a long time in the Greek world; Alkaios's verses were still being sung by symposiasts hundreds of years later.

Let's drink. Why wait for the light of lamps?
Day is as thin as a finger.
Fetch down the large painted cups.
Zeus and Semele's son gave men wine to forget their cares.
Mix it one to two, fill them to the brim, let one cup chase another

Preceding pages: These vessels in the collection of the Royal Ontario Museum were used for the sole purpose of mixing, serving, and drinking wine at Greek *symposia* around 2500 years ago. From left to right: an *oinochoe* decorated with a dancing satyr, a column *krater* decorated with a procession for Dionysos, a *skyphos* showing the courtship of a young man by an older man, a cup with war scenes, an *amphora* and lid with a heroic episode from the life of Herakles, a cup with war scenes, and a *hydria*.

Thousands of years later the scraps of verses that survive are studied for their poetic qualities and for the information they can give about this highly creative and formative phase of ancient Greek culture. Archaeological material confirms the importance of the *symposion* in ancient Greek society and illustrates some of its practices.

So privileged a place did it hold that most fine pottery was created for the sole purpose of mixing, serving, and drinking wine. No similar range of specialized pottery was created for the serving and consumption of food. The value of symposiac ceramics from the world of Archaic and Classical Greece (c.700-330 B.C.) is enhanced by the practice of decorating them with scenes from myth and daily life. Because ceramics best survive the ravages of time and symposiac artifacts were so plentiful, museum collections are crowded with pottery from the *symposion*.

Similarly architecture reflected the high social status accorded to the *symposion*. In total contrast to the general absence of rooms with a specific function in Greek domestic architecture, a special type of dining room, the *andron*, was created for the *symposion*. Good examples of *andrones* survive in private houses dating to the later fifth and fourth centuries B.C. The *andron*, as befitted its status as the one public room of the house, consistently displayed the most lavish interior. From the late fifth century some floors were decorated with mosaics of black and white pebbles, among the earliest mosaics of the Greek world; plastered walls were painted to look like the well-cut marble blocks of public architecture. Literary texts also speak of coffered wooden ceilings and bright textiles on the walls.

Andron means "men's room." The world of the *symposion* was a man's world: within it the only role for women was peripheral and servile. In their multiple capacities as musicians, dancers, acrobats, or courtesans, women were in the *andron* to tend to the needs and desires of the male symposiasts; attractive young boys helped, as might be expected in a society in which homosexual relations were the norm as a bonding mechanism among the elite. No respectable woman, least of all the wife of the host, would ever be found in an *andron*. The gender exclusivity of the Greek *symposion* marked one of the fundamental differences between Greek custom and that of other ancient peoples of the Mediterranean who either influenced or were influenced by the Greeks.

Why did the *symposion* require a special room? First and foremost because the symposiasts' adopted the custom of reclining on couches, which caused the evolution of special furniture, in particular the *kline*, or dining couch. The source of the custom is still unknown; some believe that it was an eighth- or seventh-century import from the Near East. A recent controversial interpretation sees reclining as a creation of Bronze Age Greece that was subsequently lost and then reintroduced from the East. Whatever the origin of the custom, and the manner and date of its introduction, the basic fact remains that such a mode of dining required attendants, and

so presupposes wealth; the private *symposion* from the start played a role in aristocratic display.

The practice of reclining imposed the need for a regularly shaped room so that the couches could be placed along the walls. An off-set door maximized available space by allowing the placement of a couch along the entrance wall. In fact the discovery of a room with an off-set door is a primary indicator to the modern excavator that an *andron* has been uncovered. Often there was a metre-wide raised ledge around the edge of the room on which the couches stood. Naturally, a mosaic floor pattern tended to be circular with primary decoration in the centre so that it could be easily appreciated by all diners. Few couches have survived because they were portable and made of perishable materials, but fragments of ivory from a *kline* of the late sixth century have been excavated at Athens. However, the general form of the couch is known from vase paintings.

The symposiast reclined on a mattress, which was often covered with highly patterned textiles, and leaned his left elbow on cushions or a bolster set against an arm-rest at one end. Couches were wide; they could and sometimes did accommodate two symposiasts. Vase paintings show that in Athens it was customary for the guests to recline alone unless they had a specific erotic interest in sharing their couch. The centre of the *andron* was left open to make the serving of refreshments easier, to enable hired entertainers to perform, and especially to allow everyone a clear view of each other; after all, it was conversation that provided the main form of entertainment.

There seems to have been a clear sense of optimal talking distance, and as a result *andrones* were nearly square in plan. Outside the *andron* there was frequently a narrow antechamber, which functioned both as an elaborate entrance way from the courtyard of the house and as a handy waiting place for the slave attendants —within call but not so close as to distract the attention of symposiasts from one another.

In the Archaic and Classical periods small dining groups were preferred, as they allowed congenial intimacy. The number of diners varied but at an early date seven couches came to be considered ideal. One noteworthy feature of the *andron* was that its design did not support an inherent hierarchical structure. Within the group all were treated equally. They were offered the same furniture, fed the same food, and served the same wine; the principles of convivial sharing that characterize the *symposion* fit into an aristocratic code. By contrast, the Roman symposium of several hundred years later involved careful codification of existing hierarchies. Whereas the Greek *symposion*'s most important social function was to strengthen bonding among a group of aristocrats, the Roman symposium, from the seating of the guests to the quality of food and wine, served primarily to reinforce social differentiation within the group.

With a little imagination visitors to the Greek galleries of the Royal Ontario Museum can trace the stages of an evening's *symposion* through the paintings on objects that could have been used in Athens around 480 B.C. About sundown the guests started to arrive at the home of the host. Mostly mature men, but including some *epheboi* in their early twenties, they each wore a large rectangular cloth, the *himation*, wrapped simply around their bodies. Some may have been already wearing garlands as a token of their activity; however, those without would certainly have received them from the host. The guests were conducted from the modest gateway of the house through the interior open-air court and into the *andron*. Their walking sticks were placed against the wall. Slaves then removed the symposiasts' shoes, washed and anointed their hands and dusty feet, and set little tables in front of them for their wine cups. The symposiasts were also ac-

Top and bottom: Possibly a stand for an *amphora* or a *dinos* (mixing bowl), decorated with images of guests from a *symposion* dancing and finding innovative ways to drink wine. Middle: A drinking cup illustrated with a *komast* (dancer) carrying a full wineskin and an *oinochoe*.

companied by their own slaves laden with contributions to the dinner.

Most Greek men and all women and children customarily sat down to eat; reclining was the prerogative of the adult male members of the leisured class. Knowing how to recline gracefully on a couch of waist height was an important social skill. In a scene of a comedy written by Aristophanes in the late fifth century B.C. an elegant young man tries to instruct his father in the niceties of symposiac behaviour (*Wasps* 1208-1215):

"Come and lie down, and learn now how to act at a *symposion* and in society."

"So how do I lie down? Hurry up and tell me."

"Elegantly."

"You mean like this?"

"No way!"

"How then?"

"Straighten your knees and pour yourself on the cushions, flowing like an athlete. Then praise one of the bronzes, inspect the ceiling, admire the hangings in the hall."

Obviously the first aspect of the evening's entertainment, the *deipnon*, or dinner, was considered least significant. There is even some evidence to suggest that the symposiasts ate what they themselves had brought, so that it was a picnic rather than a potlatch. This indifference to food probably relates to the fact that until quite late in their history the Greeks had a diet remarkable only for its lack of variety and simplicity of preparation. At the *deipnon* basic provisions such as bread or cakes and cheese and sometimes meat were served. Culinary arts began to develop in Athens in the fifth century B.C. in response to the rich culinary traditions of the foreign cultures to the east. A tremendous increase in the number of foreign slaves during the period may partially explain the change of palate, but more profound social changes doubtless made Athenians more receptive to new cuisines.

Come and lie down, and learn now how to act at a *symposion* and in society. So how do I lie down? Hurry up and tell me. Straighten your knees and pour yourself on the cushions, flowing like an athlete. Then praise one of the bronzes, inspect the ceiling, admire the hangings in the hall

The important part of the evening's activities began after dinner. Myrrh was passed to the guests, libations were poured to the gods, and a *paian*, a kind of hymn, was sung to Apollo; the time had come for drinking. But in this society drinking was governed by the rules of a strict social code and conducted—at least at first—in orderly fashion. Wine was, after all, a gift of the gods.

A large wide-mouthed vessel called a *krater* was brought in and set on the floor or on a stand near the centre of the room. In it the wine was mixed with water. Like the symposiasts, the *krater* was garlanded with ivy. Meanwhile the guests elected the *symposiarchos*, roughly the "master of ceremonies." (It seems that the host was not eligible.) The symposiarch's first task was to determine the amount of drinking to be done. This involved deciding both the number of *krateres* (between three and 10 are attested), and the proportion of water to wine. Proportions varied considerably; Alkaios's recommendation of one part water to two parts wine was an unusually high level of alcohol, doubtless designed for rapid release from care. The optimum amount kept the company at a pleasantly tiddly state midway between sobriety (boring) and drunkenness (disruptive and boring).

It was customary to have a handsome boy serve as wine bearer; he is usually depicted on vases as nude and holding a wine filter. The wine bearer either used a ladle to serve wine directly from the *krater* into the cups or dipped an *oinochoe* (wine jug) into the *krater* and served the symposiasts from it. To keep the wine cool, sophisticated hosts put it into a *psykter*, which was then placed into a larger *krater* filled with ice. A *psykter*'s mouth is so small that a ladle is absolutely necessary. The most common drinking cup, often called a *kylix*, has a broad shallow bowl, decorated inside and out, that rests on a tall slender stem. The shape was a challenge to produce and to paint, and the best examples have walls thinner than the finest modern china teacups. They survive in all sizes, and though they usually hold a moderate amount of

wine, some have diameters of more than 50 centimetres with correspondingly large capacities. Another type of drinking cup, the deep *skyphos*, has a lower centre of gravity (possibly for greater security) and holds on average easily twice as much as a comparably sized *kylix*. Clearly *skyphos* users meant business.

Libations to the gods were repeated at the start of every new *krater*, and each *krater* was dedicated to a different god or group of gods or heroes. The progress of the *symposion* was measured by the number of emptied *krateres*. Throughout the evening the symposiarch guided activities; he controlled the pace of drinking and worked to create the right atmosphere by defusing any potential problem. The perfect tone was never too serious nor too uproarious. All had to be done in order, with good humour, good taste, and wit—doubtless increasingly difficult as the fifth and sixth *krateres* were reached.

The symposiasts decided how to be entertained, whether by singing, playing, the music of flute girls, lovemaking, or philosophical discussions. If a discussion was chosen, a suitable topic had to be declared. In the *symposion* described by Plato, the drinkers, who wanted to take it easy after having had too much to drink the night before, agreed to give improvised speeches in praise of Eros, the divine personification of love. Some were funny, some thoughtful, one was clinical. All contributed to the comfortable convivial atmosphere that was the goal of the *symposion*.

Singing to the music of the lyre was very popular. Accordingly a crucial part of a young aristocrat's education was instruction in lyre-playing and singing. Songs could be old favourites, like those of Alkaios, or composed upon the spur of the moment on a theme assigned by the symposiarch. The topics tended to be standard: love, drinking, war, the exploits of heroes. Each person might sing a verse, passing a myrtle branch counterclockwise as each took his turn. Some of these partsongs, called *skolia*, are preserved; their poetic value is rather good, considering they really are extemporary compositions. More complicated stringed instruments, like the *kithara*, took longer to master and were left to the professionals.

Another favourite *symposion* instrument, the double pipes (*auloi*), was played by hired flute girls. Pipe music was felt to be seductive and for listening or dancing rather than for singing.

Not all Greek aristocrats by any means were high-minded individuals who delighted in nothing less than philosophical discussion and singing "classical" music to the lyre. Some *symposia* were definitely less sedate, particularly as the evening wore on, and practical as well as verbal tricks could be played. A number of "trick vases" have been found. These are oddly shaped drinking vessels, sometimes with a covered chamber. Some feature rattling pellets of clay set in the rims to embarrass any attempt at decorous drinking. Another type of cup is suspected to have been designed to emit rude noises when tipped. Perhaps the worst are those equipped with systems of holes placed in such a way as to let a shower of wine fall on the unsuspecting recipient.

One popular symposiac game, *kottabos*, is frequently depicted in vase painting. It exploited the peculiar shape of the stemmed cup. The player whirled his cup by the handle around his index finger, took aim, and let the dregs of wine fly to knock an object off a stand (especially made for the game) or to sink small bowls floating in water. It was not a tidy game.

If a *kottabos* player should win, what was his prize? Ancient literary sources suggest that it was often erotic, which brings us to another major aspect of symposiac entertainment. Within the *andron* a code of behaviour separate from that of society at large was developed, one in which unabashed lovemaking was the norm. Handsome cup boys, pipe players, and *hetairai* (female companions) were the major ob-

Top and bottom: More scenes from the vessel shown on the previous page. Middle: A young man reclines on a *kline* in a composite picture of the events of a *symposion*. Most notably he whirls his cup on his right index finger in order to toss his wine in a game of *kottabos*.

jects of attention. *Hetairai* were more than prostitutes; they were intelligent and well-educated, capable of conversing at ease with the intellectual and political leaders of the day. Companions in the fullest sense, the *hetairai* had a much less restricted lifestyle than ordinary female citizens, who were excluded from any public activity and education that was not directly related to developing the skills of housewifery.

The images painted on *krateres*, *oinochoai*, and cups had special meaning to those in the *andron*. Dionysos, the god who gave mortals wine to free them from care, and his wild retinue of maenads and satyrs frequently appear. Dionysos was a dangerous god, just as his gift was dangerous; wine was often referred to as *pharmakon*, an ambiguous word meaning drug or poison. Only Dionysos could drink wine neat; should mortals do so, it would drive them mad or kill them. But only rarely is the awesome power of Dionysos explicitly presented in art; usually he and his cohort provide the divine paradigm for human activity and suggest the release available through wine. Other popular subjects were geared to reinforce aristocratic ideology by providing models of behaviour and possibly also topics of conversation or song. Prowess in war and athletics were important themes, as were the labours of Herakles and other heroic cycles.

Many symposiac pots, of course, simply display *symposia*. Drinking scenes predominate as decoration; dining is not represented. One particularly interesting group of images decorates the interior of the shallow type of cup. When the cup is full, the image is not clearly visible and its meaning is ambiguous; only as one drinks does the message become clear. Sometimes the tondo playfully alludes to the old metaphorical association of wine with the sea where one may sport or risk drowning: dolphins may leap around the tondo or ships sail along the lip. Other messages appear. A youth running with a wineskin and *oinochoe* offers reassurance of a continuous supply. A monstrous gorgon head or a vomiting youth warns of the dangers of overdoing it.

Another favourite subject is the final phase of the *symposion*, the *komos*, when music and wine encouraged exuberant dancing. Cloaks were thrown aside as hindrances or allowed to fall every which way, and the flute girls' music risked interruption by other demands. It is possible that all the *komastai* were actually executing the same dance steps. However, interpreting dance on the basis of vase painting is always a risky business, as one does not know where artistic convention ends and accurate representation begins. The *komos* could take to the streets, going in noisy procession with *krater* and music to crash another party.

What was the nature of the *symposion*? If you were a boor and your friends were boors, you drank until your stomach protested and you abused flute girls. If you were inclined to calm reflection, you might initiate a philosophical discourse, delighting in the wit and intelligence of others

At its best the *komos* was a glorious revel, a time of total submission to the power of Dionysos, a means of freeing the heart from care. At its worst the *komos* was an arrogant statement of social superiority and even involved roughing-up passersby or damaging property. For better or for worse it was an integral part of aristocratic social experience in the late Archaic period.

Wild revel or home of philosophy and lyric poetry? What was the nature of the *symposion*? It clearly depended on the participants. If you were a boor and your friends were boors, you drank until your stomach protested and you abused flute girls. If you were an aristocrat wishing to display your extralegal status, you disrupted the peace of the city by carousing after dark. If you were inclined to calm reflection, you might initiate a philosophical discourse, delighting in the wit and intelligence of others. But wine was always present. Even at Plato's *symposion*, most of the participants drank themselves into oblivion. But let us not forget that Sokrates, when there was no one else left awake to talk to, at dawn simply got up from his couch, wrapped his cloak around him, went off to have a bath, and to start the new day. ❦

THE CHIMAERAS AND SHARKS OF BEAR GULCH

Chimaeras are among the oddest animals living today. Their relationship to other living animals could not be determined even from the fossil record until the discoveries in Bear Gulch

RICHARD LUND

THE FINELY LAYERED RIMROCK shines almost white in the dry summer heat. Only the slightest hints of the bay that disappeared 320 million years ago can be found in the light tan Bear Gulch limestone beds in the canyon lands of central Montana. Geologists who first studied these limestones abandoned them as barren.

Local ranchers found the even layers of limestone useful and attractive for walkways and chimneys. And when occasionally a pretty fish fossil was uncovered, it was cemented into a place of honour on the face of a fireplace. Eventually someone brought one of the fish to a local university, which sparked great scientific interest. Digging for fossils began in 1968 and the first of the fossil chimaeras was found soon after.

Chimaeras are among the strangest, rarest, and probably least understood living fishes. They are named after a mythological beast said to have been composed of parts of such assorted ani-

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mals as snakes, birds, and dragons. Scholars have been arguing about their relationships to other animals since the first scientific descriptions. They are usually deep-sea animals, observed alive by very few people and not eagerly sought by anyone. Most scientists classify them as distant relatives of sharks, skates, and rays. All these animals have skeletons made of cartilage stiffened by a crust of mineralized prisms rather than bone; their eggs are fertilized internally, and the males all have claspers, extensions of the bases of the pelvic fins, which they use during the act of mating. This, however, is where the resemblances end and the big puzzle begins.

The male of the species *Echinochimaera meltoni* was very sexy with extravagant sets of antlers over the eyes, spikes on the fin spine, paired rows of thorns down the back, as well as pelvic and prepelvic claspers.

Male chimaeras have a pop-up "arm" between the eyes, and a pair of limbs that fit into pockets of the skin in front of the pelvis, each equipped with sharp, tooth-like spikes. Male sharks and rays just have claspers, although some male skates have a few enlarged scales. Sharks and some related fishes have many rows of replacement teeth, but chimaeras don't have any teeth at all. Instead they have three pairs of ever-growing plates of dental material. The upper jaws of sharks and their relations are very mobile, but the upper jaws of chimaeras are fused to their braincases. Chimaeras lack the scales that usually coat the skins of sharks. In fact a full list of the differences between sharks and chimaeras would be very long.

The fossil record wasn't much help. There are a few obvious fossil chimaeras dating to 150 million years, and before that time a handful of other things that seem vaguely related to them, including sharks and shark-like fishes. However, connecting chimaeras to sharks or any other animal group through the fossil record was not possible until the Bear Gulch limestone started to produce its wonders.

The female *Echinochimaera meltoni* seems a very plain creature when compared to the male of the species.

Upon splitting a rock and opening it to the sunlight, you don't expect to look down and find black eyes staring back up, set in the head of a cartilage fish. I find the experience awesome even after 22 years of digging in the Bear Gulch. The chimaeras often reveal themselves in breathtaking flashes of reddish scales, black eyes, and fine fin and skin outlines. Extravagant sets of antlers over the eyes, spikes on the fin spine, and paired rows of thorns down the back advertise the males, as these features no doubt did in life, along with their prepelvic and pelvic claspers. It is not hard to imagine a mature male courting the smaller, plump, unadorned female or warning away another male with a dancelike display of all of his sexiest features. I only wish we could know what colours and patterns really highlighted these physical forms in life, because to judge by analogy to courtship displays of modern animals, colour and pattern played a very large role in the identification of species and sexual status.

The earliest fossil chimaera, known as *Echinochimaera meltoni*, differs in some details and clearly was not the direct ancestor of modern chimaeras. A second Bear Gulch species, however, provided a few critical pieces to the puzzle when it was revealed that it had one row of shark-like teeth instead of the first dental plates,

and that the other dental plates had a somewhat shark-like mode of growth.

Meanwhile many other cartilage fishes were being found in the limestone beds. They could be readily sorted into three groups: those with shark-like jaws and teeth, those with chimaera-like jaws, and others. A multitude of chimaera-like forms and a sprinkling of those forms that did not fit into the shark or chimaera categories offered not only hope for finding some connection between chimaeras and sharks, but a good insight into the complexities of cartilage-fish life and evolution in the Carboniferous period.

Fossils collected from any marine Carboniferous sedimentary rock are not of whole fish but rather of teeth and spines, the only parts of cartilage fishes durable enough to survive predation, scavenging, and decomposition under normal conditions. The most common teeth are those of cladodont sharks, cochliodonts (literally shell-tooth), and petalodonts. Cladodont teeth have about five to seven sharp cusps lined up perpendicular to the edge of a bony shelf. Cochliodont teeth are not really teeth, but rather ever-growing dental plates of a very particular construction. Very few whole animals have ever been found with such teeth. Petalodont teeth look very much like artichoke petals. They have an S-shaped cross section, a long root, and a more or less sharp crown. Only one poorly known species of fish is known to have had such teeth.

A smattering of life forms that fit into neither the chimaera nor shark categories offered the only hope for finding some connection between chimaeras and sharks

The fossilized remains of a pregnant female *Echinochimaera meltoni* is an especially valuable find.

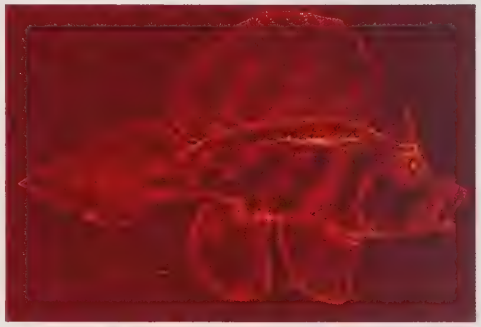
More than 20 cochliodonts or parts of them have been found in the Bear Gulch over the years. The upper jaw is always fused to the braincase. Almost all of the cochliodonts are very thorny, with many head spines and enlarged plates and scales. However, in spite of all the specimens many things remain unclear. Although their dental plates help in grouping them, they do not make it possible to identify individual species. And in this regard it is still not possible to pair males and females of the same species. Head plates and head, jaw, and fin spines, as well as the enlarged scales of males do not look like those of any of the females. The most abundant relative of the cochliodont found is eel-like in shape, with a long, low dorsal fin and no scales. Males have strange and elaborate paired crab-claw-like jointed appendages attached to the snout, which had a sexual function; the females are unencumbered. Why such great differences in the features of these male and female cartilage fishes were so prevalent in the Carboniferous period and are now so rare is a second puzzle.

Yet some pieces of the larger puzzle of the relationship of chi-

maeras to sharks are found in the cochliodont fossils. The males of one group of cochliodonts have pelvic claspers, and all members of this group have a body and fin form, front tooth rows, scales, and a mode of dental-plate growth comparable to those of the Bear Gulch chimaeras. Males of other cochliodont groups, while equally or more elaborately decorated and armoured, lack the specialized prepelvic claspers. The connection is obvious: chimaeras are related to cochliodonts, and to some more than others. This also reveals another important aspect of the puzzle that has to be solved: the relationship of cochliodonts to other cartilage fish.

Belantsea, one of the uniquely shaped and enigmatic petalodont fishes, shows none of the vital internal structures that would place it among the cartilage fishes.

Petalodont fishes remain an enigma because the teeth are so commonly discovered in rocks of Carboniferous age, yet their shapes are each unique. The first whole petalodont found revealed a truly dramatic fish shape, one well suited to swimming among the branching sponges, and one probably coloured as brilliantly in life as the modern coral-reef fishes that bear the same shape. But *Belantsea*, for all its beauty, shows nothing of the vital internal structures that would help to place it among the cartilage fishes, and at first, neither did any of the other and more fragmentary petalodonts found. Then *Netsepoye* was uncovered showing the critical fused braincase–upper-jaw structure related to chimaeras. Subsequently other species have emerged with fused braincase and upper jaw, which relate the complex dentitions of the petalodonts more closely to the unique microscopic structure of cochliodont tooth plates as well as to the more primitive structure of shark-like fish. No mature males have been found for any of these truly rare fishes.



This artist's conception shows the unusual pigmentation of a fish that has been found well-preserved, but is still impossible to describe accurately. Affectionately referred to as "El-Weirdo," it may have been related to the chimaera.

Palaeontologists always give a scientific name to the objects they find in the hope that some day the objects may be associated with whole animals. The teeth of many petalodonts and their relatives were each shaped differently (as is the case with human teeth), which has led to a mouthful of names. However, this hope has been fulfilled with many of the other Bear Gulch fishes as the tooth or spine found in the nineteenth-century can now be placed with a whole animal. For instance, the rather strangely shaped spine *Harpacanthus* was named more than a century ago from Scottish rocks. There is now a Bear Gulch fish with six *Harpacanthus* spines emerging from the tip of its snout. A male has been discovered, but no female. Did the females have this grotesque appearance? More important, though, for the study of how animals are related is the fact that the *Harpacanthus* fish has neither shark-like nor chimaera-like jaw support, but rather something in between.

Unicorn sharks look somewhat like sharks of today.

Other fishes displaying intermediary jaw support are the iniopterygians (neck-fins), named for their pectoral fins, which emerge from the body just behind the top of the head. Almost all other known fishes have their pectoral fins placed along the lower flanks or somewhat up the side of the

flanks. Those few living fishes that have pectoral fins placed in the iniopterygian position can fly through the air. Not all of the Bear Gulch iniopterygians could have flown, however, because two species have very large, bulky heads and bodies best suited to either cruising along the bottom or lurking on the bottom waiting for a tasty shrimp to come along. The jaws of the iniopterygians are classic cases of evolutionary experimentation: some species show the fused upper jaw, others the more primitive intermediate condition.

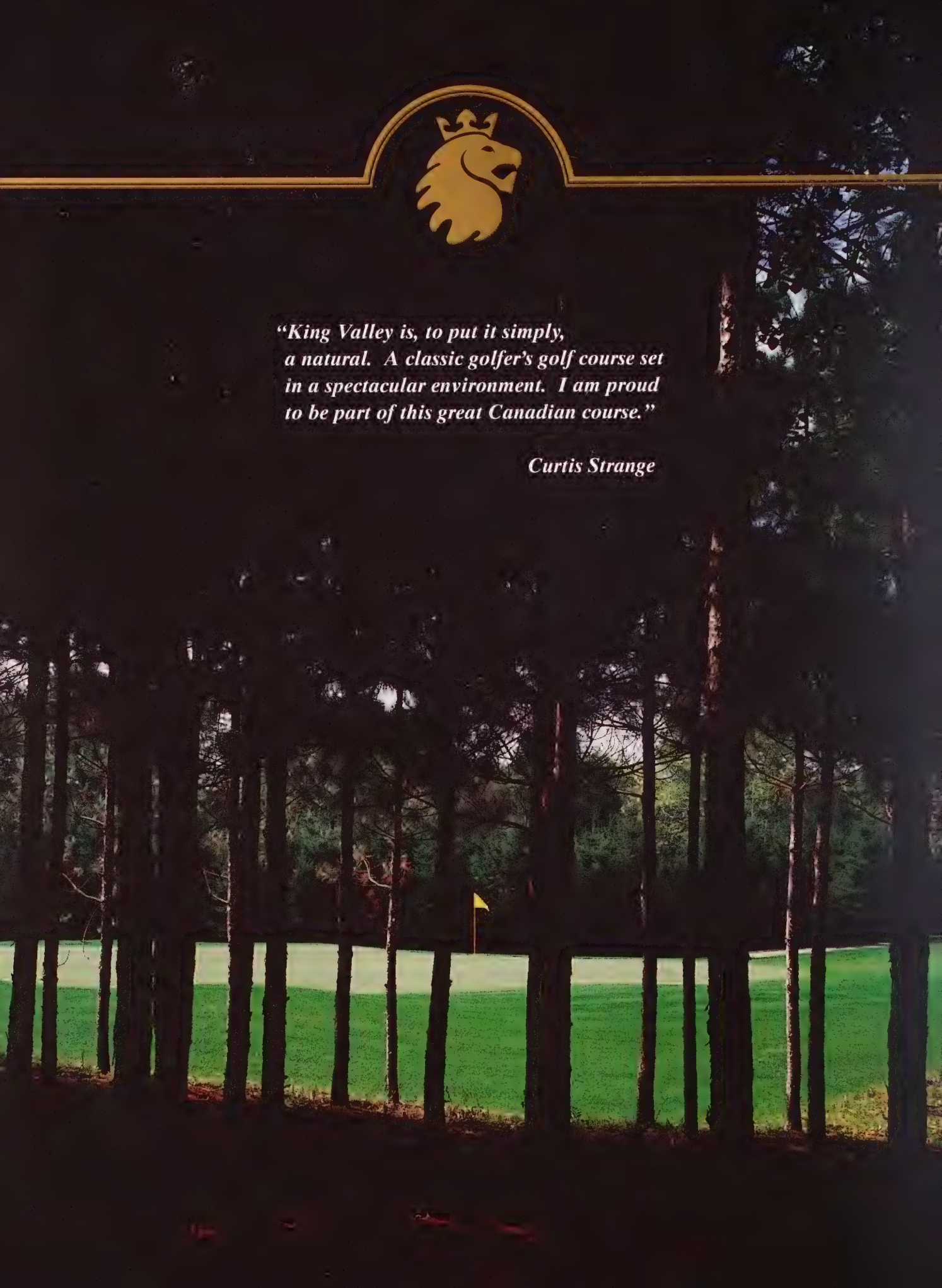
The superfish, a small cartilage fish, appears to be the missing link between sharks and chimaeras

There are several cartilage fishes from the Bear Gulch limestone whose relationships to other fish species remain complete mysteries. Among these is a form with an alligator-like head with thousands of tiny teeth and a ribbon-like body that is one metre long and two centimetres high. Another almost eel-like mystery has very strange teeth and a fascinating name, *Venustodus.*

Iniopterygians or neck-fins were given their name because their pectoral fins emerge from the body just behind the top of the head. Some species have chimaera-like jaws and others an intermediary jaw structure that is like neither those of chimaera nor sharks.

Ultimately, a school of small cartilage fishes proved to be the critical link in the puzzle of relationships. With the enthusiasm that my colleagues and I felt after finding the first specimen, we named them superfish. They have small shark-like teeth, the intermediate upper jaw support, and the scales that are common to most cartilage fish, and they look a bit like modern sharks. These fishes seem closest to a group called the orodonts. To date it appears that no adult or male specimens have been collected.

Some of the sharks of the Bear Gulch Bay actually look a bit like sharks of today, although sharks have changed over the millennia. The most common sharks in the bay are those with cladodont teeth. Males of the species have strange, forwardly curved dorsal spines and fins, crowns of large tooth-like scales on their heads, and other patches of scales that the females and young lack. Such obvious male adornments seem to contradict hydrodynamic common sense, but the spines associated with several cladodont species can be found in rocks from all over the central United States, in England, Scotland, and Russia representing a period of about 20 million years. Evidently the evolutionary value of these sexual advertisements was significant, and the hydrodynamic disadvantages less so. This, and possibly this alone, may be the answer to the second puzzle. ❦



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Curtis Strange

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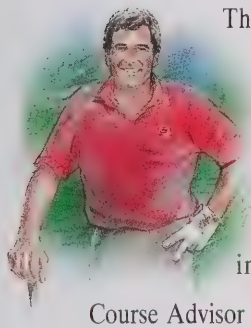

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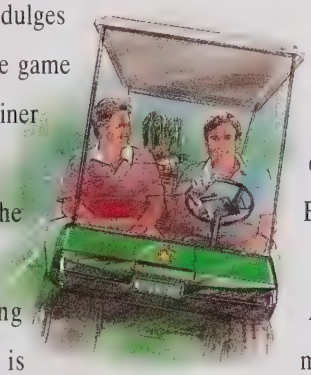

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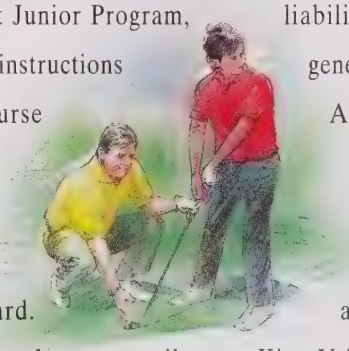

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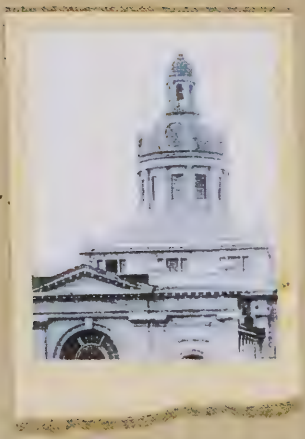


CHURCHES.

A St. George's, Church of England.
B St. Paul's, " " "
C St. James', " " "
D All Saints', " " "
E St. Andrew's, Presbyterian Church.
F Bond Street, "
G Chalmers' Canada Presbyterian Church.
H Congregational Church.
I Baptist Church.
J Wesleyan Methodist Church.
K Queen Street, "
L St. Paul's Methodist Church.
M Cathedral of the Holy Communion, Catholic.
N Apostolic Church, Catholic.
O Gas Tavern and Brewery.

Walking Through Sir John A. Macdonald's Kingston

There's no better place to commemorate the 100th anniversary of the death of Canada's first prime minister

Douglas Fetherling

Canadian newspapers edged their front pages with heavy black borders to announce the death, at 76, of Sir John A. Macdonald. The loss was a public event that struck at the very heart of Canada, the country that he more than any other person might be said to have created. Nowhere else can the centenary of this event be marked with greater ease and realism than in Kingston, the Ontario city that considers itself, with good reason, to be almost synonymous with Macdonald's career. Macdonald lived there from age five, when he came with his family from Glasgow, to age about 65, and after more than one interruption he continued to represent Kingston riding until the end of his life. It was in Kingston that he became a lawyer and then a public figure, serving variously as alderman and member of the legislature.

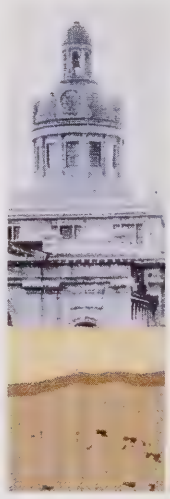
When Kingstonians point to the large number of buildings and sites with Macdonald associations, it is testament not only to the city's rich architectural heritage, probably unmatched by any other small city in Canada, but also to Macdonald's long and intricate relationship with the community. Many Canadians know

COLLAGE BY ERIC COLQUHOUN, PHOTOS COURTESY QUEEN'S UNIVERSITY ARCHIVES

Douglas Fetherling is literary editor of the *Kingston Whig-Standard*

Bellevue, one of the Macdonald residences, which became a national historic park in 1964 and is visited by 50,000 people each year. But Margaret Angus, the author of an admired book on local architecture entitled *The Old Stones of Kingston* and dean of heritage preservationists, has found addresses for an extensive list of other buildings, many of them still standing, in which Macdonald either lived or worked or, in the custom of the time, both. And these are only part of the landscape he would have known and which people can still enjoy. One could set up a walking tour of Sir John A.'s Kingston.

In the nineteenth century Kingston newspapers sometimes used the phrase "Clarence Street lawyer" (perhaps with a note of derision, depending on the context). Clarence Street, which runs back from the waterfront along with Brock Street to form a pie-shaped wedge in the middle of the street grid, is lined with lawyers' offices even today. Some of them still have signboards, which moan and squeak in wind, emitting a sound that once must have gone together quite naturally with the clicking of horses' hooves.



Standing at the northeast corner of Clarence and Wellington is perhaps the best way to get an immediate grasp of Sir John A.'s Kingston. Looking back over your shoulder you can see, one short block north, 169-171 Wellington, a small building far older than it looks. The ground floor, which is now a lunch counter, has a plaque affixed to it stating that the young Macdonald had his law office there in 1835. Alas, nothing remains of the interior he knew; the building has been renovated any number of times, most recently during the summer of 1989. It is in fact even more important in the history of Canadian politics than the commemorative tablet allows. Macdonald took in two articling students. The first was Oliver Mowat, who would grow up to fight Macdonald in an election and then become premier of Ontario; the second was Alexander Campbell, himself a future Father of Confederation, senator, lieutenant-governor, and holder of assorted cabinet portfolios. Like Macdonald, both men were knighted eventually.

Now, looking across Clarence Street, you see a number of buildings that Macdonald would have known intimately, beginning with St. George's Cathedral (begun in 1828). With its massive dome and Loyalist grandeur, St. George's was in some ways the social centre of the city, though Macdonald himself was a Presbyterian and worshipped at St. Andrew's Church on Princess Street (not far from the Royal Tavern, another spot with claim to a Macdonald association). Next door to the cathedral, at King and Clarence, is the Custom House, which is still used for its original purpose. The next building along Clarence, directly opposite where you're standing, is the old Post Office; it is still a government building, though its original function has long since been taken over by a larger, more modern structure right up the street. In a straight southerly line but just beyond the range of vision, on what was the extremity of the city that Macdonald knew as a young boy, is the Frontenac County Courthouse, another domed edifice. Macdonald's published letters include an 1855 note to a political crony urging that the new courthouse be "completed at latest by the autumn of 1856...Until that is done we cannot go on with the new Post Office & Custom House, both of which will be a great improvement to Kingston." One sees at the back of such remarks a shrewd and intuitive understanding of patronage and quid pro quo.

As a professional office holder over many decades, not to mention as a prominent business person with several directorships in Kingston and elsewhere, Macdonald was naturally enough something of a booster. In another of his letters, he writes, "Three cheers for good old Kingston!," gloating over some new preferment he had managed to wangle for his constituents. That is one important factor for any understanding of Macdonald's Kingston. Another is simply that the city's glory days happened to coincide with his own young adulthood, when he was in the process of overcoming his origins.

When he came here from Scotland the city was making the transition from a role that was primarily military to one with an economy based on business and administration—not through diminution of its

Preceding pages: On this bird's-eye view map of Kingston, drawn by H. Brosius in 1875, Sir John A. Macdonald is pictured with some of the buildings where he lived, worked, and visited throughout his career. Counter-clockwise from upper left: City Hall, Bellevue house, first office in Wellington Street, a nineteenth-century view of 110-112 Rideau

military function (there was a British garrison until the 1890s and Fort Henry was still in the future, as was also the Royal Military College), but rather through the growth of the port, the opening of the Rideau Canal, and other such developments. Kingston had two or three thousand residents when the Macdonald family established itself there. Toronto didn't overtake it in population until the 1840s, when Kingston was at its height.

The uprisings of 1837-38 (some of whose participants Macdonald defended in court) were the turning point for Kingston. With the troubles put down, the authorities looked with suspicion on Toronto and Montreal. Kingston, however, had been the loyalest of the loyal, and now it was eager for its reward amid the new realities outlined in Lord Durham's Report. It was in such an atmosphere that Kingston entered its *belle epoque*, becoming capital of the new United Province of Canada in 1843, the same year that work was begun on the City Hall, whose dome dominates the waterfront.

It is not true, as is commonly supposed, that City Hall was built to be the Canadian parliament. The story no doubt originated in the fact that the structure was far larger than the municipal affairs of a town of only 6,000 people warranted (the Kingston Police Force, for example, didn't outgrow it until 1971). Once the decision was made to return the capital to Montreal, city officials kept offering the imposing building to the government free of charge to lure it back, and this action may have contributed to the legend as well. It was this City Hall from which Macdonald served as alderman, starting in 1844 when the boom was still going on.

The building was designed by George Browne, whose other works dotting Kingston include what is now a trust company branch on the northwest corner of Brock and Wellington, directly opposite Sir John A.'s first law office. All of Browne's buildings would have been known and probably used by Macdonald. There are a number of private homes that were also directly or indirectly connected with Macdonald. Next door to St. George's, for example, is the 1825 mansion (now offices) called the Gildersleeve House; it was the residence of Overton Stuart Gildersleeve, a Kingston lawyer who once ran against Macdonald for a seat in the legislature. One could go on at some length, as Kingston is full of such places.

Kingston was, however, a scene of miseries and disappointments as well as career triumphs for Macdonald. He was 15 when he left school to read law, and it is not too much to say that his success, as he became interested in politics, first local and then at broader levels, went hand in hand with the personal tragedies that had always dogged him. His upbringing was not propitious.

Macdonald's mother was a strong personality but his father was a weak presence, an alcoholic who failed in business more than once. The picture that has come down of the young John shows him to have been at times the roughest of diamonds. Once while playing soldier with a loaded shotgun he narrowly missed killing one of his sisters. Their brother was murdered by a drunken servant. Macdonald's first appearance in court came when he was sued for playing a prank that resulted in the death of a horse.

Macdonald's Kingston was that of a young person on the way up and full of energy, not that of an old statesman

His first court appearance as a member of the bar ended in fisticuffs with the opposing counsel. When his father died in 1841, John A. was left with onerous responsibilities to his mother and his siblings, who were often unwell as the years went on.

In 1839 Macdonald had left the building in Wellington Street (then called Quarry Street) to practise for a while in Napanee, the next town to the west. But he kept returning to Kingston and lived at a bewildering array of addresses that, to judge from their location, their size, and their appearance now, indicate steadily rising fortunes. Margaret Angus has done the most detailed research on his various houses and offices, finding that though he wasn't actually present in the city the whole time, being established in Toronto or Ottawa, he nonetheless maintained legal residence in Kingston for 68 years. The first 25 of those years, when he was actually working and living there, were the busiest and account for most of his two dozen different homes within the city limits or nearby.

When the family first arrived, they stayed with relatives of Mrs. Macdonald at Bay and Montreal streets until Hugh Macdonald, Sir John A.'s father, opened a general store in Church (now King) Street, near Market Square where a farmers' market has been held since about 1800. They doubtless lived over the shop, as they did later when the business moved to a new building (also gone) on what was then called Store Street, now Princess, Kingston's principal shopping thoroughfare. The business didn't prosper, and the rest of the family withdrew to surrounding towns while young John, who was in school in Kingston, remained behind—probably boarding in Rideau Street in the north end, not far from the first of two houses he lived in (both demolished) when he began to study law. It wasn't long before he was advertising in the press that "John A. Macdonald, Attorney &c. has opened his office, in the brick building belonging to Mr. Collar, opposite the [dry goods] Shop of D. Prentis, Esq...where he will attend to all the duties of the profession." The "brick building" referred to was the one on Wellington Street.

Soon he was living away from his office, having taken a two-storey limestone house at what is now 110-112 Rideau Street. Within three years he had moved up the social scale and lived in Queen Street near Sydenham Street.

By 1840 rumour was rife about Kingston's impending selection as the capital. Macdonald bought a Brock Street building lot and put up two houses, one to occupy himself and the other to rent out for income; they were probably designed by George Browne. It was at this address that he lived with his wife, the former Isabella Clark, following their marriage in 1843. But the house had to be vacated when it proved too noisy and uncomfortable for the bride, a semi-invalid who suffered from tuberculosis and grew addicted to the opium used in one of the treatments. It was then that Macdonald rented Bellevue, the Italianate villa in Centre Street away from the downtown bustle, on a hill overlooking the lake. It is interesting to note that when the Foreign Office was being built in Whitehall in London in 1861, the prime minister, Lord Palmerston, insisted that it be made in the Italianate style rather than in the Gothic preferred by the architect: the former held Liberal associations, the latter Tory.

Macdonald lived at Bellevue only a year, a time marked by increasing concern over his wife, his sister Louisa, who was also ill, as well as by other sorrows and worries. Of two children by this marriage, the first died in 1848 shortly after his first birthday. The other, Hugh John, born in 1850, survived into maturity, but Macdonald was not always happy with him, though he too became a lawyer, and eventually the premier of Manitoba. Father and son had long periods of non-communication, apparently because Hugh John had married a Roman Catholic widow — this despite the fact that John A. played down his Orange allegiance once he went into public life. He did, however, adore his grandchildren consistently.

In the fall of 1849, after the first boy's death, the Macdonalds moved to the present 180 Johnson Street, near Sydenham, another two-and-a-half-storey limestone house of the period. Later, Macdonald found a place in Barrie Street for his mother and sisters and returned with Isabella to the Brock Street house, after ordering some renovations to make life there easier for her. Margaret Angus speculates that the period after going back to Brock Street must have been one of the happiest of his life; certainly he was his customary productive self.

In 1854 Macdonald became attorney general for Canada West, in 1857 premier of the Province of Canada, in 1858 postmaster general and then attorney general again. His law firm moved from 343 King Street East (now a clothing boutique) to 73 Clarence Street in 1860, and he became literally what he already was figuratively: "a Clarence Street lawyer." In 1856, however, the Brock Street house was destroyed in a fire that swept the central part of the city. The family resettled in rented accommodation at the present 194 Johnson Street, one of the hundreds of buildings put up during the boom of the early 1840s. It was here that the funeral was conducted for Isabella, who died at the end of 1857.

By 1860 the widower Macdonald, father

of 10-year-old Hugh, rented another country house, called Hazeldell, on the western approaches to Kingston. It was much smaller than Bellevue and less grand (the rent was 26 pounds a year) but it had a pleasant air. His mother died there in 1862. Macdonald was already away much of the time on political business, but he installed his various dependents at yet another house, Heathfield, about a mile west of the city on Princess Street. There he presided whenever he was back in the city and again became in fact what he remained for legal purposes: the head of the household. Heathfield lasted long enough to acquire a commemorative plaque marking its significance, but it was razed in 1964 before Kingston's pride in Macdonald had gathered force or come to be seen as a source of tourism.

As the family dwindled—Margaret, his sister, died and Hugh matured and moved away—the remnants regrouped at the house now designated as 79-81 Wellington Street, near the corner of Earl. Later still, in 1878, they moved to 134 Earl Street, another two-storey affair of local limestone, so characteristic of Kingston (it was gutted by fire in April 1990). By now, Prime Minister Sir John A. Macdonald was only an infrequent visitor to Kingston.

After ten years as a widower, during which time many anecdotes grew up about his drunkenness, along with stories about a possible involvement with the widow of a judge in Peterborough, Macdonald married his second wife. Agnes Bernard was a talented writer, both privately in her diaries and publicly for assorted magazines. Mary, their only child, was born hydrocephalic and required constant care for the rest of her life: another injury to Sir John's psyche.

Donald Swainson, a professor of history at Queen's University and the author or editor of many books on Macdonald, Kingston, and other historical subjects, cautions people to keep one essential fact in mind on any walking tour of Sir John A.'s city: Macdonald's Kingston was that of a young person on the way up and full of energy, not that of an old statesman. "His connection to Kingston stops at a certain point. His second wife never lived here at all, and he moved his law practice to Toronto in 1870 or so. In 1873-78 he commuted to Ottawa from Kingston and finally moved to Toronto himself after he was defeated in Kingston." Following that loss he served other ridings, including Victoria, British Columbia, until re-elected in Kingston in 1887 and again, for the last time, in 1891, shortly before his death. In those days people stood for office wherever it was convenient. "It seems a crude system," Swainson says, "but conversely he would have been shocked at the notion of people becoming political leaders without House of Commons experience, as happens today."

Another point worth remembering is that though downtown Kingston today, with its wrought-iron railings, boot scrapers, rounded carriageways built to keep horses off the street, seems a model of old-fashioned stability at times, in Macdonald's day it was anything but quaint or remote from politics and power. It wasn't standing still. Change, in fact, is perhaps what must have distinguished Sir John's city most clearly. Swainson says, "If you think that he came of age in the St. Lawrence-centred Province of Canada, long before the Grand Trunk [its old station is now a pub] arrived in the early 1850s, but went on to ride the Canadian Pacific all the way to British Columbia — that's actually quite remarkable." Especially considering that the CPR and hence British Columbia were in large measure his creations.

Though Kingston today seems a model of old-fashioned stability, in Macdonald's day it was anything but quaint or remote from politics and power

There is one more Macdonald site in Kingston that should be visited. The Kingston establishment is notorious for supposedly saying that people aren't real Kingstonians until three generations of their families are buried in Cataraqui Cemetery, which is in Sydenham Road. The Macdonalds meet that criterion, and Sir John's grave, restored in 1982 with public and private contributions from Kingston and beyond, is itself a tourist attraction.

But Kingston's most famous son is not considered a member of the proprietary class—he was too raucous and earthy for that. ❦

A king with no clothes is still a king.

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This is one of the 300 proudly furnished dollhouses on view at the Strong Museum in Rochester, New York.

The Margaret Woodbury Strong Museum

A COLLECTION IS ONE THING; A museum, in the modern understanding, is another. The makers of the Margaret Woodbury Strong Museum inherited a stupendous collection, but it was their ability to see a focused museum in a dizzying multitude of objects that has made this Rochester, New York, landmark a deserved success.

But first came the collection. Margaret Woodbury (1897-1969) acquired her magpie tendencies naturally: her wealthy parents, early Eastman Kodak shareholders, were both avid collectors, her father specializing in coins and her mother in nineteenth-century Japanese bibelots. As a child on the family's extended European tours, Margaret was given a bag at the start of the day and told she could fill it with whatever she wanted. She liked to trace her lifelong passion for miniatures to this parental tactic.

In the 1950s and 1960s Margaret Woodbury Strong was a familiar sight at auctions and house sales in the Rochester area and farther afield, where she bought the most unlikely objects in staggering quantities. Unlike other wealthy collectors of her generation, Mrs. Strong bypassed antiques and fine art in favour of the manufactured objects of daily life—toys, kitchen chairs, advertising catalogues, wringer washers. (Her neighbours were not amused when she bought a quantity of claw-footed bathtubs and ringed her summer house in Maine with them, for use as planters.)

By the time she died, Mrs. Strong had crowded her mansion and its outbuildings with almost 300,000 objects. Again, unlike other begetters of museums, she took a remarkably *laissez faire* approach in her will, empowering her executors to establish a museum if and however they saw fit. Once they decided to proceed, a director, H. J. Swinney, and curators were chosen. Rather like Michelangelo's liberation of a statue from a block of stone, their task—both methodical and imaginative—was to identify and shape the museum that lay hidden within the collections.

Not a simple undertaking. Although her collections of dolls and toys were celebrated, Mrs. Strong's eccentricities had obscured the quality of her other extraordinary collections. The virtually unrecorded objects were so closely packed that simply getting physical perspective on them was difficult. Relatively secondary hoards of, for example,

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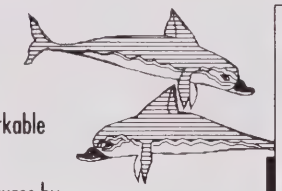

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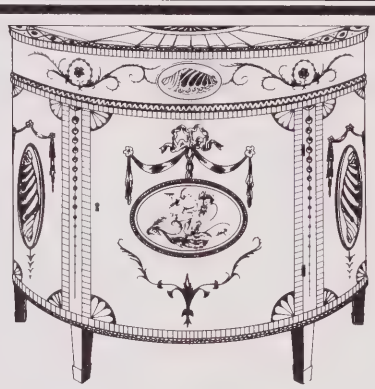

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shells and minerals distracted the curators from the real centre of the collection. Gradually that centre became clear: it was Mrs. Strong's idiosyncratic interest in popular culture, in the manufactured objects middle-class people in the northwestern United States used to furnish their lives and their houses from 1830 to 1940. The Strong Museum was to become a history museum, a place to understand America's transformation from an agrarian society to an industrialized nation.

Now, nine years after its opening in a modern building in downtown Rochester, the Strong Museum is making impressive use of its founder's obsessions. The museum's first floor is devoted to self-guiding, self-explanatory thematic exhibits, such as "The Great Transformation" (from isolated pockets of settlement to the industrialized society of the twentieth century); changing tastes in household furnishings; "A Century of Childhood;" the role of advertising in American life; gardening as a leisure activity; the radio in American family life. Large and amorphous as these subjects might seem, the exhibit designers keep the museum's mandate firmly in mind: to bring to life a time when, as one of their brochures says, people "began to buy what they once made, to have next-door neighbours where they once had fields, and to have new ways of doing just about everything."

Although museums, by definition, are centred on objects, their *significance*, even their symbolism, is foremost here. In addition to admiring the line of a settee, visitors to the exhibit about household furnishings will learn that classical styles were favoured in the 1820s and 1830s, when the young country prided itself on being "The Virtuous Republic." By midcentury, the "piety and virtue" of Gothic styles were properly inspirational for the family rooms.

Similarly, a busy, multi-media exhibit on the radio in American life

is less concerned with technology and early examples of radios than with its effect on stereotyping, national unity, and the role of women. As those socially sensitive topics suggest, a few decades of affirmative action in the United States have left a usually deft mark on the Strong Museum. It often appears in the interactive parts of the exhibits: in the advertising exhibit, brimful with wonderfully characteristic ads from the 1840s to the present, museumgoers can consult a video screen to discover whether their own ethnic group was caricatured in early advertising and whether advertising was targeted in their direction. A representative from the ethnic group chosen appears on the screen to explain, for example, the anti-Semitic stereotypes that surfaced in early advertising and the twentieth-century beginnings of advertising directed to the Jewish buyer.

The second floor displays the museum's study collections—almost 19,000 objects from shaving mugs to food-processing tools to whistles. Each and every piece has a retrievable card with information about its age and provenance, which means that visitors can choose the breadth and depth of their response. It's possible to "graze" the cases, admiring the hundreds of inkwells on display, for example; on the other hand, the card retrieval system allows a visitor to trace the evolution of the early, utilitarian inkwells made of pewter or soapstone through the elaborate fantasies of the Victorian and Edwardian periods, when ink might be drawn from dragons' heads, camels, brass lobsters, even a ceramic invalid lady in her chair.

Probably all successful museums have some parts that are pure bliss, requiring absolutely no effort. For about half the population, the second-floor doll collections in the Strong Museum fall in that category. A prominent display case is reserved for Mabel, Margaret Woodbury's German china doll; Margaret's own hair, cut at age five, was

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used for Mabel's crowning glory. Behind Mabel, a formidable sample of the world's largest (19,000 dolls) and most definitive collection stands at attention—whole cases of peddler dolls, fortune-teller dolls, baby dolls, dolls in national costume, nineteenth-century bisque-headed dolls with extraordinary eyebrows made by the two famous French firms of Jumeau and Bru, Kewpie dolls from jazz-age Germany, the irresistible painted felt Lenci character dolls from Italy, complete wedding parties of china dolls from the 1920s, and hundreds more. Complementing the dolls are collections of toys and some 300 proudly furnished dollhouses that speak volumes about nineteenth- and early twentieth-century conceptions of childhood, leisure, work, and architecture.

The Strong Museum takes its educational role seriously but never heavily, with all ages in mind. One History Place, on the first floor, is an activity centre for children aged three to seven complete with an old-fashioned house, an attic furnished with old clothes and toys, a small theatre, and a large steam train. At the other end of the spectrum, the third floor houses a library of more than 25,000 volumes and special paper collections that include more than 4000 trade catalogues. The library is open to the public and the collections can be seen on request.

Whether for the most casual walk-through visitor or for specialists in Flow Blue tableware, valentines, or labour-saving devices, the Strong Museum affords thoughtful, tactful hospitality. Four hundred years ago, in "An Apology for Poetry," Sir Philip Sidney exalted poetry for its capacity to teach and delight simultaneously. It may seem an incongruous compliment but, judged on those grounds, this deliberately everyday museum is poetic indeed.

KATHERINE ASHENBURG
Katherine Ashenburg is art and books editor of The Globe and Mail

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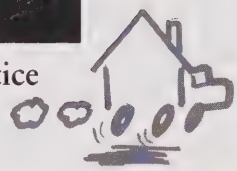

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Ancient Writing and People, Explorers, Castles, Exotic Lands and More

Reading the Past: Ancient Writing from Cuneiform to the Alphabet edited by J.T. Hooker (University of California Press, $29.95) is one work of scholarship that the popular audience might find especially useful. "Armed with this book," the publishers boast, "a student, museum visitor or traveller can now approach a whole range of ancient sites and objects with fresh insight." And it's true. This is a collection of individual monographs by six different scholars, five British and one American. Their subjects are: cuneiform, the earliest type of writing, developed in Mesopotamia about 3200 B.C.; Egyptian hieroglyphs; Linear B, the script used in Greece in the Bronze Age but not deciphered until 1952; the early alphabet (or rather alphabets, plural, encompassing the Greek, Semitic, and Arabic); Greek inscriptions; and, finally, Etruscan, which is particularly important as it was the agency through which the Greek alphabet provided the inspiration for the Latin one.

No two of the specialists here use exactly the same style of presentation, but they all provide dozens of illustrations, including sample alphabets and texts, for all are conscious of the way they are helping people to begin to make their own halting translations of what they see in museum cases. Two of the writers—those on cuneiform and Linear B—list places where examples of those written languages can be seen; the ROM is given as the only Canadian institution with cuneiform tablets on display.

Despite the differences in format, you can read the book through from start to finish and emerge with an intelligent overview of how, and why, such languages developed. Written language—as distinct from the simple pictorial representations of cave paintings, which convey information of a sort but aren't linguistic—is tied to the rise of the city-state and the need on the part of the authorities to keep records, such as inventories and tax rolls. Its use as a tool of the small powerful class is what the writing of the Egyptians has in common with that of the Mayas, for example—or what both of them have in common with what was taking place in China.

In all these cases the writing was pictographic, based on representations of animals, people, and things. But as societies became more complex, the pictographs evolved into ideograms, in which abstractions and leaps of thought were involved. An ideogram of a beast, for example, might once have meant *beast* but now meant *food* as well. Eventually, the characters came to represent sounds. As written language became more closely tied with speech, it became easy for anyone who could speak to read and write as well. This was a revolution, to say the least. But the process wasn't fully completed until the invention of vowels by the Greeks. It's probably no coincidence that the Greeks invented democracy as well.

Some of the same history is covered in **Pen, Ink, & Evidence: A Study of Writing and Writing Materials for the Penman, Collector, and Document Detective** (University of Kentucky Press, $75) by Joe Nickell, a former Torontonian, but the overlap is slight. Nickell's mandate is to show how written language has been affected by the evolution of the stylus, the pencil, the fountain pen, and the ballpoint, and by various advances in the manufacture of both ink and paper. The author's ultimate purpose is to permit the reader to apply such knowledge to the study of documents, whether for literary scholarship or archival preservation. But the amount of social history imparted along the way—on the implications of the postage stamp, for example, or on the use and abuse of codes and ciphers—makes the book particularly rewarding to the general audience. Hundreds of prints and photos help as well, to say nothing of Nickell's sober but congenial style.

HERE ARE SOME OTHER NEW BOOKS, from a variety of sources both popular and obscure, which might be of interest to *Rotunda* readers.

• As the long story of European colonial influence in Africa ends, there is clearly renewed interest in African exploration in the nineteenth century. Recent manifestations include a fresh biography of John Hanning Speke, discoverer of the source of the Nile, as well as Frank McLynn's really quite remarkable new life of Speke's rival, Sir Richard Burton. McLynn has also published a two-volume biography of Henry Morton Stanley.

Now comes **Dark Safari: The Life Behind the Legend of Henry Morton Stanley** (Random House, $29.95), a more compact treatment by John Bierman, a Torontonian with African experience. What a gory tale of self-aggrandizement it is, too. Stanley (not his real name)

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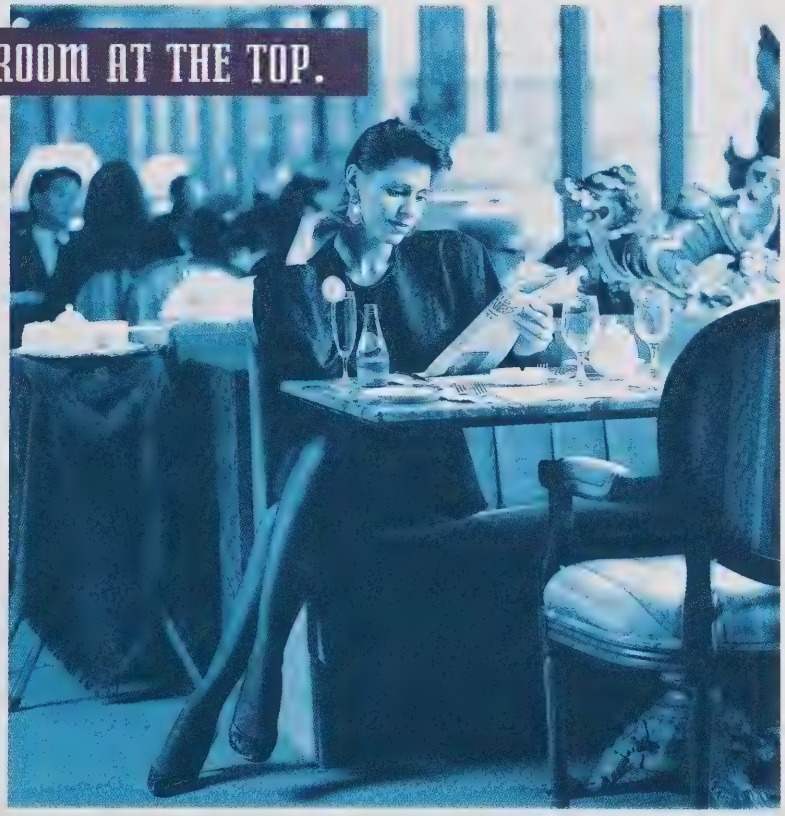
was a Welsh orphan who came to the United States in 1858 and served on both sides in the American Civil War before drifting into sensational journalism. When the New York *Herald* assigned him to find Dr. David Livingstone (a gifted explorer but a lesser missionary, who in any event wasn't really missing), it launched Stanley's transformation from reporter to public figure (he eventually became an MP in Westminster). His explorations and discoveries as such were of relatively minor importance except that they put him in a position to act as the agent for the Belgian government in the manipulation of what became the Congo Free State and is now Zaire. It's a story full of every sort of abuse and brutality on the part of the whites, not excluding a suggestion of cannibalism.

• **The Buffalo People: Prehistoric Archaeology on the Canadian Plains** by Liz Bryan (University of Alberta Press, $24.95 cloth, $14.95 paper) deserves much wider attention than it is likely to receive. It is an excellent example of a particular type of work (one more common in Britain than here) in which a serious layperson surveys a complicated academic field, weaving information from scores of different sources into the sort of intelligent overview that is normally beyond the scope, or the desires, of scholars immersed in their narrow specialties. The book is the story of thousands of years of human life on the prairies—particularly the past 5000 years when the climate began to assume its present characteristics. But it is also the story of the growth of archaeology during only the past six or seven decades. It is during that period that techniques and methods, and a few lucky discoveries, have permitted researchers to piece together the chronology of the successive waves of native inhabitants and articulate the differences in the way they hunted, sheltered themselves, and worshipped. The heritage is incredibly rich. In Alberta alone, there are thought to be 600,000 tipi rings, the stone circles (built 1000 years before Stonehenge) that indicate a temporary settlement. The author pays a great deal of attention to calmly setting out competing claims, theories, and hunches, and carefully sifting what is known from what is suspected. Her organization is cogent and her prose most readable.

• Thousands of people not previously familiar with it got to marvel at Castle Howard, the enormous Baroque stately home near York in England, through the television series "Brideshead Revisited." There is thus a large natural audience for **The Building of Castle Howard** by Charles Saumarez Smith (University of Chicago Press, $29.95). This is a study of both the house and its gardens and of the two persons most closely associated with the place —Charles Howard, the Third Earl

THERE'S ROOM AT THE TOP.



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of Carlisle, who ordered it started in 1699, and the architect (and playwright) Sir John Vanbrugh, who commenced actual building in 1701. The author shows how Carlisle's desire for such a place arose from what he had seen on the obligatory Grand Tour and how Sir John, who later designed Blenheim Palace, reconciled that vision with his own. Details of the financing are particularly fascinating. The book, which is heavily illustrated, became possible only in 1978, when the Howard family archives were catalogued for the first time.

• **Travelers of the Cold: Sled Dogs of the Far North** by Dominique Cellura (Raincoast, $39.95) is one of those large-format photographic books that tries to look at the subject from every possible angle. There is the sled dog in art, the care and feeding of sled dogs, great sled dogs of history, the sled dog's role in the Klondike gold rush, and so on. Much of the book focuses on professional sled racing, whose origins go back to the Nome Kennel Club in 1907. Today there are three major annual races of which the most important is the Iditarod, covering 1770 kilometres from Nome to Anchorage. The emphasis of the book, which first appeared in French for the European market, is on Alaska, but inevitably much of what it deals with spills over into Canadian territory.

• **Nepal: The Mountains of Heaven** (Penguin, $60), a large photographic study by David Paterson, carries a foreword by Sir Edmund Hillary lamenting the fact that his famous expeditions to Mount Everest set in motion a steadily increasing tourist trade that now threatens the country's whole environmental and economic future. "Forests were cut for firewood and building timber and at times careless fires destroyed square miles of trees," he writes. "The upper valleys became barren and desolate and severe erosion was apparent on every hillside. In the heavy rains of the monsoon season, the rivers ran red with topsoil sweeping down into the Ganges and ultimately into the Indian Ocean." As a result, the photos of monks and mountains and terraced villages take on a melancholy tinge of nostalgia. Yet one is still surprised by how green the country is.

• **Eyelids of Morning: The Mingled Destinies of Crocodiles and Men** by Alistair Graham and Peter Beard (Raincoast, $29.95) received a lot of attention and praise when it was published in 1974, and it has now come out in paperback. Graham, a zoologist, and Beard, a photographer, both of whom live in Kenya, perched on the shores of Lake Rudolf studying the interaction between the Turkana tribespeople there and Nile crocodiles, a delicately balanced relationship in which each side is both predator and victim. Between the lines, but very clearly so, is a strong and eloquent environmental message.

• **Dinosaurs, Spitfires & Sea Dragons** (Harvard University Press, $29.95) by Christopher McGowan, the ROM's curator of vertebrate palaeontology, is a completely revised, expanded, and rewritten version of his 1983 book **The Successful Dragons: A Natural History of Extinct Reptiles**. It is also the distillation of a whole career spent studying the beasts of the Mesozoic era. Seldom is so much scientific information from so many different areas of research presented in such a cogent fashion (yes, even adolescents will get much out of McGowan's work). You come away with a sense of how recent a field the study of dinosaurs really is—how in fact we may be living in the golden age of discovery.

• **Haliburton Flora** by Eleanor G. and Emerson W. Skelton (ROM, $12.95 paper) is a particularly vivid and affecting example of a certain type of scholarship that will forever be associated with nineteenth-century Britain, with its endless profusion of amateur scientists and antiquary-vicars. Such are the antecedents of this contemporary and resolutely Canadian book. Eleanor Skelton, who broke into the male-dominated Ontario Fisheries Research Lab in 1929 and married Emerson, a chemical engineer, in 1931, devoted the 15 years before her death in 1989 to collecting and cataloguing the vascular plants of Haliburton County, Ontario. The project proved monumental. The book classifies 25 varieties of fern, for example. More than 2000 species are included in all, with their popular and scientific names, locations, and degrees of rarity; tables and maps complete the picture, resulting in a handbook for use not only by botanists and teachers but by nature lovers in the field.

• Finally, there's **Garden of Dreams: Kingsmere and Mackenzie King** by Edwinna von Baeyer (Dundurn Press, $39.95), the end result of a very different kind of research. From 1901 until his death in 1950 King spent some of his time—as much as he could arrange—at his estate in the Gatineau Hills, complete with its architectural ruins and rustic spookiness. The garden was the most important feature of life there—"not a whimsical majestic garden," writes the author, a garden historian, "but, reflecting King's personality, an earnest one." To him it represented "the best of all possible worlds...At Kingsmere he saw himself as he wanted to be: an ardent lover of nature, a sensitive, cultured soul, and a protector of a natural heritage. As the estate expanded, it became an expensively maintained stage set, where he changed roles whenever he wished—from humble cottager to gentleman farmer to country squire." This is only the latest, and by no means the least intrinsically interesting, of the books to benefit from a scouring of King's diaries in the National Archives.

DOUGLAS FETHERLING
Douglas Fetherling is literary editor of the Kingston Whig-Standard.

LETTERS/FURTHER READING

Van Horne Important Donor to ROM and Railways

I read with great interest Katherine Ashenburg's article "Art on the Rails" in the summer 1991 issue of *Rotunda* (Volume 24, number 1). Its description of Sir William Cornelius Van Horne (1843-1915), the American-born CPR official, focused on his role in commissioning photographers and painters to promote the railway.

Rotunda readers may be interested to know also that he was a donor of objects found in various departments of the ROM. A case in point is his collection of Japanese ceramics that he had been acquiring for almost three decades when, in 1909, he donated a portion of it to the provincial collections. The Van Horne Collection, including another group of 34 Japanese pieces given by his grandson Lieutenant William Cornelius Covenhoven Van Horne in 1944, comprises the largest donation of Japanese ceramics from a single source in the ROM's holdings. Part of Sir William's Japanese collection is also held by the Montreal Museum of Fine Arts.

Many of the wares he collected are of low-fired earthenware from lesser-known kilns. The individual pieces are not always the ceramic masterworks sought by more specialized museums, but they are extremely useful to a diverse Japanese collection like the ROM's. Six objects from the Van Horne Collection are now on display in the From the Collections Gallery and undoubtedly more will be highlighted when the Museum's permanent Japanese gallery becomes a reality.

HUGH WYLIE,
FAR EASTERN DEPARTMENT, ROM

FURTHER READING

(compiled with the assistance of the authors and the Library of the Royal Ontario Museum)

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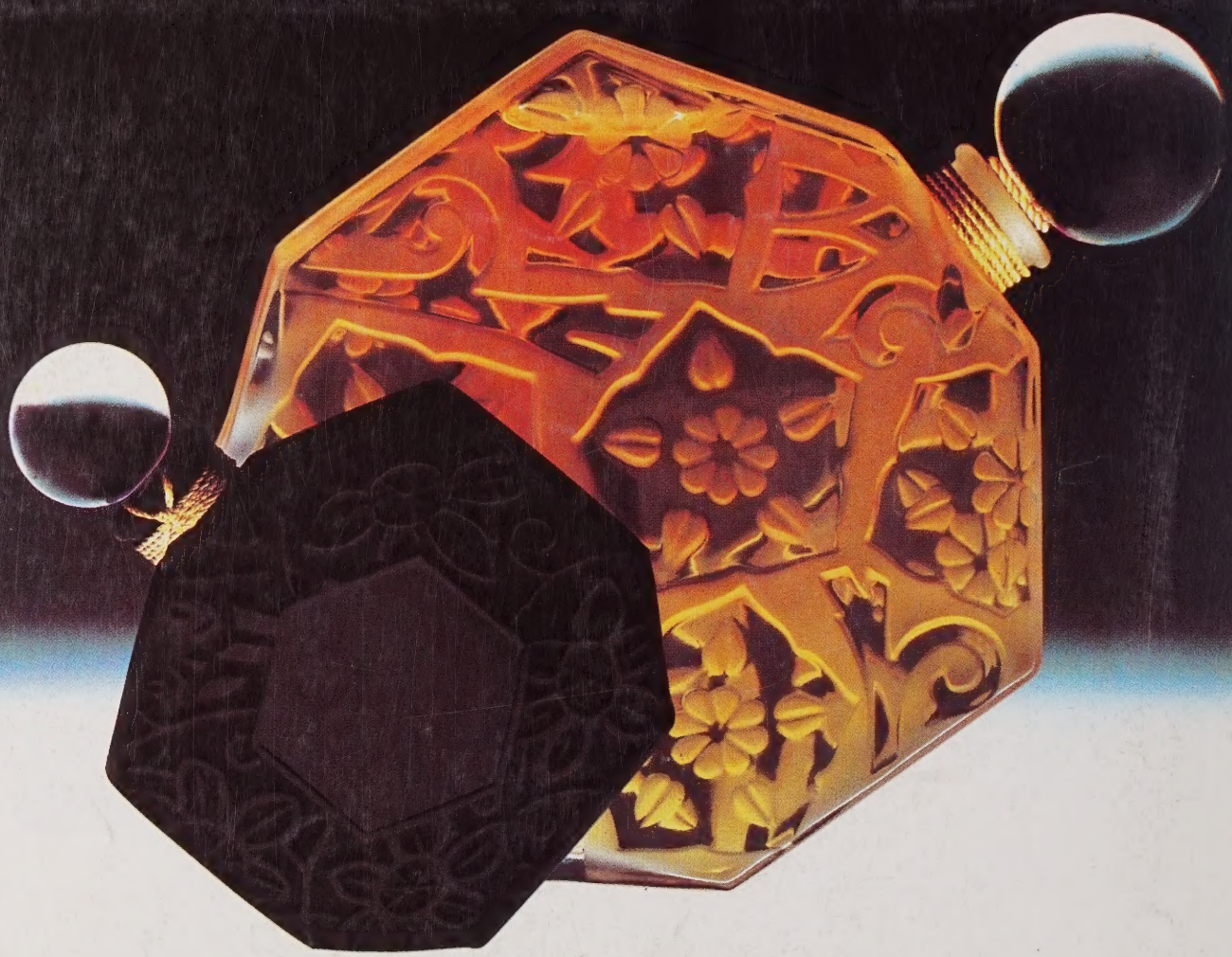

Ombre Rose by Jean-Charles Brosseau